Issue 112 ■ May ■ 1997 ■ £4.50

AMIGA COMPUTING

4.5Mb of utilities





LightWave secrets revealed

exclusively inside - all the commercial tricks and tips of LightWave and more exposed

Amiga on Holiday ● Stylus 500 ● PC-Task v4.1 ● iBrowse v1.1

"World of A1200" & "Top 100 Games" or "Epic
be upgraded to 1997 version for £12.99) CDs



TOTAL MEMORY EXPANSIONS

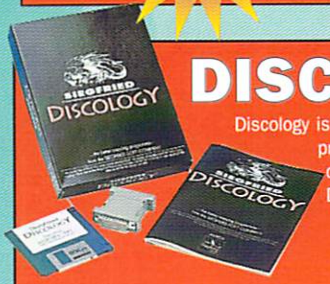
A1200 trapdoor fitting memory expansions feature a battery backed clock and a socket for an accelerator FPU. Unlike other memory expansions that conflict with the PCMCIA port, our TOTAL memory expansions include unique software that will enable the maximum amount of memory to be used even with a PCMCIA fitting device.

NEARLY DOUBLES THE SPEED OF THE A1200

SALE PRICE

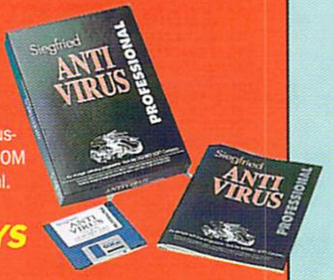
4MB MEMORY EXPANSION £69.99
8MB MEMORY EXPANSION £89.99

33MHZ 68882 FPU (PLCC) £29.99 or only £24.99 when purchased with above



DISCOLOGY

Discology is the ultimate in disk copying power for the Amiga. The package comprises the Discology Disk, manual and Discology cartridge for making copies of heavily protected programs with an external disk drive. Discology will also format disks, check disks for errors etc.



ANTIVIRUS

Anti Virus Professional is the most powerful tool for detecting and removing viruses. Anti Virus pro will check and device hard drives, floppy disks and even CD ROM drives for viruses. Very straight forward to use, includes a full 50 page manual.

ORDER NOW BEFORE A VIRUS DESTROYS YOUR SYSTEM !!!

PLEASE PHONE FOR A FULL INFORMATION SHEET

£19.99 EACH OR BUY BOTH FOR £24.99

DATAFLYER SCSI+



Now includes CD ROM drivers and instructions.

The Dataflyer is a 16 bit SCSI II controller card that converts the signals on the internal IDE interface to also run SCSI devices at the same time as the IDE hard drive. The Dataflyer SCSI+ will operate up to 5 SCSI devices such as CD-ROMS, hard drives, Syquest removable drives, tape back up drives etc. Unlike other SCSI interfaces, the Dataflyer SCSI+ is compatible with all known accelerators etc and it does not stop you from utilising any of the important expansion ports on your A1200/A600. The Dataflyer SCSI+ easily installs into the A1200/A600 (simply pushes in, no need to remove the metal shield) and provides a 25 way D connector through the blanking plate at the back of the A1200. *Full instructions and software supplied.*

DATAFLYER ONLY £79.99 or £49.99 when purchsed with a SCSI device

SQUIRREL ONLY £49.99 or £39.99 when purchsed with a SCSI device

SURF SQUIRREL £89.99 or £74.99 when purchsed with a SCSI device

MODEMS



Our highly rated, top quality feature packed modems are ideal for Amiga users. All modems include our FREE MODEM ACCESSORIES PACK (worth £19.99) which includes a cable to connect the modem to the Amiga, NCOMM comms software, Amiga Guide to Comms and a list of Bulletin Boards from which you will be able to download vast amounts of free software as well as have access to E-MAIL facilities.

• MNP 2-4 Error Correction • MNP 5 Data Compression • Fax Class I and II compatible, Group 3 • Hayes Compatible • Full 80 page manual • 12 Months guarantee

SALE PRICE

14400 MODEM £69.99

33600 MODEM £109.99

NET AND WEB SOFTWARE £34.99

ALSO AVAILABLE...

EXTERNAL FLOPPY DRIVE	£49.99
A600/A1200 INTERNAL FLOPPY DRIVE	£44.99
A500 INTERNAL FLOPPY DRIVE	£49.99
MOUSE	£12.99
3.5' HARD DRIVE CABLE	£17.50
2.5' HARD DRIVE CABLE	£9.99
FRESH FONTS CD	£19.99
PHOTO CD-MANAGER	£19.99
AMIGA POWER SUPPLY	£34.99
CLOCK CARTRIDGE	£19.99
CACHE CDFS	£44.99
EPIC ENCYCLOPEDIA CD (full '97 version)	£19.99
50mhz FPU (for blizzard 1230)	£44.99

WORLD OF A1200 CD and TOP 100 A1200 GAMES CD £7.49 EACH *or FREE with every CD ROM drive!!!*

Freephone 0500 340548 to

ncyclopedia" (1996 Version. Can
REE with every CD ROM drive!!!

ZIP DRIVES

Highly rated SCSI drive will store 100mb per cartridge. Comes Complete with power supply, SCSI cable, instructions and cartridge.



ZIP DRIVES £159.99 OR £199.99 with Squirrel

JAZ DRIVE £439.99 OR £479.99 with Squirrel

SALE PRICE

CD-ROM DRIVES

TOTAL SCSI CD-ROM DRIVE



Fully featured SCSI CD-ROM drive for use with the A1200 or A600. Features include superb metal enclosure with in-built mains power supply. Includes all software, cables and instructions for immediate use. Full CD32 emulation and Audio CD player software included. No extras needed! Just plug in and go. Choose either PCMCIA fitting Squirrel interface or internally fitting Dataflyer SCSI interface.

TOTAL CD-ROM DRIVES

2 speed	£129.99
4 speed	£159.99
6 speed	£209.99
8 speed	£249.99

Prices include Squirrel. Add £30.00 for Dataflyer or Surf Squirrel

SALE PRICE

APOLLO A1200 ACCELERATORS



APOLLO 1230 LITE £99.99

High quality low cost 68030 accelerator with MMU and FPU all running at 25mhz. Built in battery backed clock. Easy trapdoor fitting. Amazing performance for such a low price. Will take a 4mb or 8mb SIMM. *Not PCMCIA compatible with 8mb fitted.*

APOLLO 1230 PRO £149.99

TWIN SIMM TECHNOLOGY

All the features you asked for at an affordable price! High performance 68030 with FPU and MMU running at 40mhz. Two 72pin SIMM sockets can take upto 32mb each. Simms can be mixed *(i.e. a 4mb and 8mb will give 12mb)* and can be single or double sided. Fully PCMCIA compatible regardless of how much memory is fitted. Easy trapdoor fitting with battery backed clock

APOLLO 1240/1260



68040/68060+MMU based A1200 accelerator. Features battery backed clock and a 72 pin socket for a standard 72 pin SIMM (up to 128mb). Fully featured, fan cooled trapdoor fitting accelerator.

APOLLO 1240/25 £199.99

SALE PRICE

NEW LOWER PRICE

APOLLO 1240/40	£289.99
APOLLO 1260/50	£449.99

4MB SIMM £19.99
8MB SIMM £39.99 OR
16MB SIMM £79.99 WHEN
32MB SIMM £169.99 WHEN
PURCHASED WITH AN APOLLO ACCELERATOR

SALE PRICE

HARD DRIVES

2.5" HARD DRIVES

Our high speed 2.5' IDE hard drives for the Amiga A1200 & A600 computers come complete with fitting cable, screws, partitioning software, full instructions and 12 months guarantee. All drives supplied by us are formatted, partitioned and have Workbench (WB2 for the A600 and WB3 for the A1200) installed for immediate use. Fitting is incredibly simple; if you can plug the mouse into the mouse socket, you can plug the hard drive into the hard drive socket.



FREE WHILE-YOU-WAIT FITTING SERVICE FOR PERSONAL CALLERS. PLEASE PHONE FOR APPOINTMENT.

***FREE* 'HOW TO FIT YOUR HARDDRIVE'** video and Stakker disk to increase the drive's capacity with every hard drive ordered

A500/+420mb Hard Drive £209.99

340mb	£109.99
540mb	£139.99
1000mb	£174.99
1800mb	£209.99

SALE PRICE

siren

No.1 FOR MAIL ORDER

No.1 FOR AMIGA IN MANCHESTER

Order NOW for immediate despatch

FREEPHONE 0500 340548
(credit/switch card sales only)

for enquiries

tel: 0161 796 5279

fax: 0161 796 3208

Send cheques or postal orders (made payable to Siren Software) or credit card details to:-

SIREN SOFTWARE, 178 BURY NEW RD, WHITEFIELD, MANCHESTER M45 6QF, ENGLAND

Access, Visa, Switch, Delta, Connect etc accepted

OPEN:

Monday to Friday 9am to 6pm
Saturday 9am to 12pm

Personal callers welcome.

Please phone first to check availability of any item.

DIRECTIONS:

From the M62 Junction 17 head towards Bury. We are 50 yards on the right hand side after the third set of lights. The door to our premises is next to Polar opposite the Masons Pub.

All prices include VAT. Postage and packing will be charged at £3.50 per order (U.K.), £7.50 Europe and £12.50 rest of the world.

place your order

Contents

Amiga Action

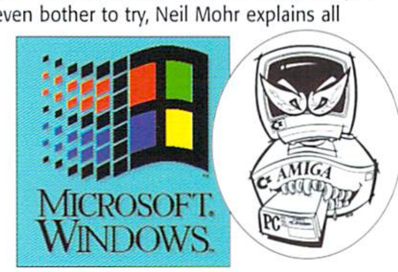


Reviews

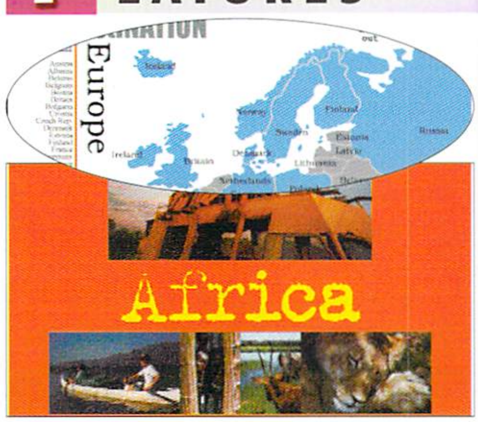








Features



THE COVERDISKS

MONSTER UTILITY SPECIAL

If you had two sticks you still wouldn't be able to shake them at all the utilities crammed on these disks, but you can have a good try

Includes:

ToolManager v3 ● Filler ● Password ● QT v1.3 ● ModeP ● ApplSizer ● Atapi PnP ● GroovyPlay ● MCC HTML ● MultiCX v2.63 ● MCX Prefs ● RemCards



COVER STORY



REGULARS



AMIGA GUIDE





amiga comment

Power to the people

Amiga Computing is currently going through editors on a yearly basis, **Neil Mohr** is next up

The news we have all been waiting for has unfortunately not appeared, and Amiga Technologies is still in the hands of the liquidators. There is, however plenty to feel hopeful about. In a recent announcement, Peter Tyschtschenko says Amiga Technologies is still trading as if no bankruptcy occurred, gaining new distributors and trading at a level where AT could be self-sufficient. Fairly amazing considering the current situation.

AmiTech has managed this by exploiting new markets that are opening up, mainly eastern European countries and Russia itself, along with the Far East, including China. All this adds up to a vast market for low cost computers – an area that the A1200 fits perfectly.

It also appears that the massive boom in PC computing all the pundits were predicting has not happened. Currently almost a third of American homes have a home computer. Last year something like 9 million PCs were sold, not to new users, but to existing PC owners. No new PC users, no computer boom. Possibly the main reason for this is that the price of PCs has not changed, they are still in the $2000 – $3000 range, thanks of course to increased hardware requirements brought on by Windows 95.

PRICE CUTTING

Until something is done about the price of computing it looks as though PCs will stay in well-to-do, middle class homes. This has not gone unnoticed by the big PC manufacturers who are only now starting to aim machines at the lower $1000 band. This is also backed up by Microsoft deciding late last year, in its infinite wisdom, to invent the 'NetPC' – a low-cost way to get us all addicted to Windows.

So what is this miracle of the modern age that can bring high cost PC computing to the masses? Well, it turns out to be two year old PC technology; 100Mhz Pentium, Super VGA graphics – the worrying part is the 'no end-user expansion slots' part of the deal. Doesn't this mean that you cannot upgrade, that you have to in fact replace the whole damn thing? No wonder the PC manufactures love the idea, you have to replace your entire computer every year just to be able to keep running the software.

But don't we all know of a low-cost 'NetPC'? The Amiga's main market role was as a low-cost home computer, far below even the cost of current 'cheap' PCs. Worryingly, the only company even thinking of producing a low cost Amiga style computer is PIOS, who is targeting the £500/$800 price bracket. The trouble is Phase 5 is going to compete with (by the time its A/Box comes out) similarly priced and spec PCs in a tricky market and QuickPak is aiming at the DecAlpha where the market is, again, already jam-packed.

There is also the problem that the A1200 is woefully out of date. But then no one is really expecting the A1200 to do wonders, who ever does get the Amiga will have to go the PowerPC way. PIOS' first machine will be aimed at the desktop market, but the second machine it plans is the low-cost machine for the masses. With multiprocessing capabilities and standard PC components this is a computer that is inexpensive, expandable and powerful, attributes the Amiga has always had.

Looking back, albeit through a slightly rose tinted fringe, myself and many of my friends owned Spectrums, C64s, Atari STs and Amigas. The unifying point with all these systems is that they were inexpensive and currently there is not a single machine out there that can fill this gap in the market. This is a market the Amiga used to fill very well, ownership spread to over three million households in this country alone. Perhaps when a stable owner is found for the Amiga, it can get back to where it belongs.

Neil Mohr

Neil Mohr
Editor

The *AC* team

EDITOR	Tina Hackett
DEPUTY EDITOR	Neil Mohr
ART EDITOR	Tym Leckey, Eddie Banks, Gareth Adams, Fiona Howarth, Jim Eagers
PRODUCTION EDITORS	Justine Bowden,
NEWS EDITOR	Hugh Poynton
REGULAR CONTRIBUTORS	Dave Cusick, Katherine Nelson, Paul Overaa, Phil South
AD SALES	Sue Horsefield
AD PRODUCTION	Barbara Newall
MARKETING MANAGER	Steve Tagger
PRODUCTION MANAGER	Alan Capper
DATABASE MANAGER	Victoria Quinn Harkin
	0171 831 9252

CIRCULATION DIRECTOR	David Wren
MANAGING DIRECTOR	Ian Bloomfield
DISTRIBUTION	COMAG (01895) 444055
SUBSCRIPTION	0151-357 2961

Member of the Audit Bureau of Circulations

ABC 22,051
Jan-Jun 1996

Published by IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP
Tel: 01625 878888, Fax: 01625 879966

EMail contacts:
Editorial: edit@acomp.demon.co.uk
Advertising: ads@acomp.demon.co.uk

We regret *Amiga Computing* cannot offer technical help on a personal basis either by phone or in writing. All reader enquries should be submitted to the address in this panel.
Amiga Computing *is an independent publication and Amiga Technologies is not responsible for any of the articles in this issue or for any of the opinions expressed.*

All prices listed in the editorial content of this magazine are inclusive of VAT unless stated

12 issue subscription £49.99 (UK), £69.99 (EEC) £84.99 (World)
Ongoing quarterly direct debit: £10.99 (UK only)

Printed by Apple Web Offset Ltd.

IDG MEDIA

US Readers – Amiga Computing (ISSN 0959-9630) is published monthly by IDG Media, England, a subsidiary of the IDG Corp. Periodical postage paid pending at Boston, MA and additional mailing offices. **Send enquiries to:** IDG Macclesfield.

US yearly subscription rate: USA Gold $70, USA Standard $40

For eight years Amiga Computing has been the leading magazine for Amiga enthusiasts. Amiga Computing promises to inform, educate and entertain its readers each month with the most dedicated coverage of the Amiga available

Amiga Mice

Replacement Mice £6.95
MegaMouse 400 .... £9.95
MegaMouse Plus (3 Button) £10.95
Optical Mouse £29.95
New Golden Image TrackBall........... £19.95
Pen Mouse .... £12.95 (ideal for CAD)



Ram Boards

RAM CARDS A1200

A1200 with clock and 4Mb £49.00
A1200 with clock and 8Mb £65.00
A1200 with clock & 33Mhz FPU ... £80.00

RAM CARDS A500/500+ & A600

A500 512K w/o clock £15.00
A500+ 1Mb w/o clock £20.00
A600 1Mb w/o clock £20.00
A600 1Mb with clock £30.00

Controllers

AlfaPower Hard Drive controller A500 ... £99
AT-Bus Hard Drive controller A2000 ...... £69
Oktagon 2008 SCSI controller £99
Multiface III £79
PCMCIA Controller for CDRom for A1200 £69

Spider

NEW MULTI I/O CARD

FOR AMIGA 1500/2000/4000

Active 8 port high speed serial card. Multiboard Support 57600 Baud rate on all channels simultaneously. **£299**

New AlfaQuatro Buffered Interface

Specially made hardware and software. Allows 4 ATAPI devices, ie, 2 IDE hard disk & 2 IDE CD Rom to Amiga 4000 internal IDE controller, through Alfapower on Amiga 500/500+ and possibly Amiga 1200, comes with full IDE Fix software **£59**

Joysticks & Joypads

Amiga Joysticks **£9.95**
Amiga Joypads................................ **£9.95**

Speakers

Multi Media Speakers 100 watt (pmpo) £30.00
Multi Media Speakers 240 watt (pmpo) £45.00
Multi Media Speakers 300 watt (pmpo)* £59.95
** 3D surround sound*

92% AUI



Winner of Gold Format Award in Amiga Format February 1997

Best pricing on CD ROM Drives & Hard Drives.

We can supply CD ROM solutions for ALL Amigas from A500 to A4000. We will match any genuine advertised price and also give free CD Cleaner on top where we have to price match any product.

All our External IDE CD ROM Drives have built in power supplies (they do not draw power from your Amiga)
Three different options to connect CD ROM drives to A600 or A1200

a) Use PCMCIA port for total external solution without opening up your Amiga. You can Hot plug this device without harming your Amiga.
b) Use Internal IDE port with AlfaDuo if you have 2.5" Hard Drive (will be with full IDEFIX software).
c) Use Internal IDE port with AlfaQuatro buffered interface if you have 3.5" Hard Drive (will be with full IDEFIX software).

All CD ROM drives have play CD facility. Audio connection at front as well as at the back. Metal casing.



	External A600/A1200	Internal A1500/A2000	External* A500/A500+	Internal A4000
Quad speed CD ROM for	£149.00	£119.00	£129.00	£109.00
Eight speed CD ROM for	£169.00	£139.00	£149.00	£129.00

*(for A500/A500+ Alfapower hard drive controller and Hard Drive is required). A1500/A2000 supplied with IDE controller & software. A4000 supplied with AlfaQuatro interface & Full IDE Fix software.

Floppy Drives



External Floppy Drive for all Amigas...... £39.95
Internal Floppy Drive A500/500+ £35.00
Internal Floppy Drive A600/1200+ ... £35.00
A-Grade Double Density box of 50 disks £13.00
including colourful labels

IDE Hard Drives

HARD DRIVES + AT-BUS CONTROLLER FOR AMIGA 500(+)/A1500/A2000/A3000/A4000

AT-Bus hard drive controller £69.00
Alfapower hard drive controller £99.00
Alfapower-640 640Mb hard drive £199.00
Alfapower-1.2G 1.2Gig hard drive £259.00
Other sizes please ring



IDE 2.5" Hard Drives

IDE 2.5" Hard drives come formatted and installed with Workbench. Cable, screws, software and instructions supplied. *(please ring for availability)*

60Mb	£59.00	250Mb	£99.00
80Mb	£69.00	340Mb	£109.00
★120Mb	£70.00 ★	420Mb	£119.00
170Mb	£79.00	540Mb	£129.00

IDE 3.5" Hard Drives

IDE 3.5" Hard drives come formatted and installed with Workbench. Cable, screws, software and instructions supplied. *(please ring for availability)*

640Mb	£99.00	1.7GIG	£179.00
720Mb	£110.00	2.1GIG	£219.00
840Mb	£125.00	2.5GIG	£239.00
1.0GIG	£159.00	3.2GIG	£Call
★1.2GIG	£165.00 ★	3.8GIG	£Call

Memory

4Mb Simms......... £20.00 16Mb Simms ... £60.00
8Mb Simms......... £30.00 32Mb Simms... £150.00

Scanners

800 dpi £79.00
800 dpi with full OCR (last few so hurry) ... £99.00
400dpi with Migraphs acclaimed Touch-Up, Merge-it and full OCR........... £119.00

Miscellaneous Products

44pin 3 connector cable £10.00
44pin 2 connector cable £5.00
40pin 3 connector cable 90cm £10.00
AlfaDuo 44pin to 40pin Interface & IDE cables... £20.00
AlfaQuatro 3x40pin buffered interface & IDE cables . £39.95
DD floppy disks (50) *including multicoloured disk labels* £13.00
DD floppy disks (100) *including multicoloured disk labels* £25.00
3.5" Hard Drive Kit for A600/1200 *+ Install software* £15.00
Colourful Mouse Mat
Animal Jungle design and Dinosaur design ... £5.00
Optical Mouse Mat £5.00
2 in 1 Scanner/Mouse Pad *Can be used as a memo pad* £5.00
Contoured Wrist Pad........................ £3.00
Plain Wristrest £2.00

CD Cleaners - 1/2 price

CD Rom Cleaner £3.00
Automatic CD Rom Cleaner *(battery powered)* ... £10.00
Laser Lens Cleaner £4.50

Accelerator Boards

1230 33Mhz + 4Mb £135.00
1230 33Mhz + 8Mb £145.00
1230 33Mhz + 16Mb.................... £175.00
1230 50Mhz + 4Mb £179.00
1230 50Mhz + 8Mb £189.00
1230 50Mhz + 16Mb.................... £219.00

All prices include VAT. Please add £3.50 P&P for items under £30.00, £5.00 for items over £30.00, £8.00 P&P for Scanners, Speakers & Hard Drives, £10.00 courier for next day. Tax Free Export Orders Welcome.

Golden Image accepts Access, Visa, Cheques & Postal Orders. E&OE. Prices subject to change without notice. Goods subject to availability. Specifications subject to change without notice.

GoldenImage (UK) Ltd

Unit 65, Hallmark Trading Estate, Fourth Way, Wembley, Middx HA9 0LB

Sales Hotline No: 0181 900 9291 Fax: 0181 900 9281

http://www.reserve.co.uk/gold Talking Pages: 0800 600900

Our standard terms and conditions apply – available on request. We do not supply on a trial basis.

VISA MasterCard SWITCH AMERICAN EXPRESS

EPIC CD-ROMS

The Best just got Better

VISITORS WELCOME!

DEALER ENQUIRIES WELCOME *Telephone:* **0181 873 0310** *for more information.*

IN-TO-THE-NET

INTO THE NET contains all the tools required to access and explore the internet with ease. The double CD set contains usable versions of MIAMI, Voyager, iBrouse, AmiTCP and more. In addition the CD's contain many utilities for creating your own WEB pages, down-loding mail, and much more.

Most items are directly usable from the CD's

Suitable for any KS2/3 Amiga

CD224 £19.99

MICK DAVIS' CARTOON CLIPART

NEW!

Mick Davis's Cartoon Clipart Volume One is a new Amiga CD-ROM containing around 500 commissioned cartoon images, all of which can be used "royalty-free". Each image is stored as IFF, and all have been scanned at the highest possible resolution to ensure the best quality when printed. Supplied with a 30+ page printed index of each image. Every commissioned image on this CD is 100% original and does not/will not appear on any other CD-ROM.



CD235 NEW £24.99

MAGIC WORKBENCH ENHANCER V2

The new Magic Workbench CD contains the largest collection of Magic Workbench Icons, Backdrops and tools ever compiled. Includes well over 5,000 Magic WB Icons, Over 600 specially selected Magic Workbench backdrops in 8, 16 and 256 colours, over 30megabytes of Workbench tools, gadgets, patches and desktop enhancer tools/utilities. The CD also includes Magic Workbench aswell as many other items never before released on any Amiga CD ROM. If you want to update/enhance you existing Workbench 2 or 3 then this is the perfect Workbench add on CD ROM. This CD is only suitable for any Kickstart2/3 based Amiga's such as the A500+, A600, A1200, and A4000.

NEW!

CD187 £17.99

ANIME BABES (18)

Contains around 5000 erotic hand drawn Images in the Japanese anime tradition.
This CD is of an Adult nature and should not be purchased by anyone likely to be offended by drawings depicting nudity and / or sex acts.

Includes images only suitable for persons over the age of 18.

CD191 £19.99

SEEDY ROMS
THE HOTTEST AROUND

Adult Sensation is possibly the Amiga's largest selling adult title. It features over **4,000** high quality 256 colour images of the "adult" nature. Image viewers and coverters are included for any Amiga. (OVER 18 ONLY) **(CD01) £19.99**

Adult Sensation 2 not only contains **4,000** new colour images but also includes tons of adult related samples, adult music modules, tonnes of adult stories, adult animations, black&white 70's photos, adult games and more. (OVER 18) **(CD115) £19.99**

Sexy sensation, this CD contains around **2,000** specially chosen high quality BMP & GIF Images. Viewers & graphic converters are included for easy and quick access to any of the pictures on any Amiga. (OVER 18) **(CD169) £19.99**

Adult Sensation 3D actually contains over **2,000** true 3 Dimensional colour images. 3D viewing software and top quality 3D glasses are also supplied. Available now! (OVER 18) **Rated 90%** **(CD145) £19.99**

Adult Animations contains hundreds of naughty? animations/film clips for Adults only. Viewing software included for the Amiga. Limited first stocks so order now. HURRY!!!! (STRICTLY OVER 18's ONLY) **(CD146x) £29.99**

Adult MENsation is a collection of unigue images of the male body. This CD-ROM has been compiled to forfill the hundreds of requests for a CD dedicated to the ladies. Very easy to use. Okay on any Amiga. **(CD164) £19.99**

AMIGA 1.2GIG HARD DISK

1.2gigabyte (1200mb) ready-to-fit Amiga hard drive. Pre-formatted and installed with Workbench 3. Supplied with all cables and instructions.
With FREE harddisk sw!

Only £179.00 + £4.00P&P

AMIGA CD-ROM DRIVE

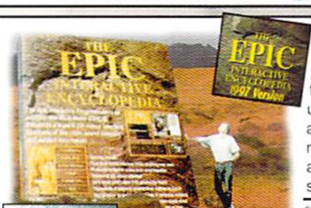
Quad(4x) speed CD-ROM drive complete with interface for the A1200. Supplied with installation software. Includes a FREE copy of the *Epic Collection*.
Please quote: ***Q-Drive***

Now only £149.00 + £4.00P&P*

OVER 100 AMIGA CD-ROM TITLES AVAILABLE.

THE EPIC INTERACTIVE ENCYCLOPEDIA '97

NEW FOR 97



97% of registered users have rated the Encyclopedia 9/10 or higher.

We took everyones valid comments with concern to the first release of the Encyclopedia and changed, modified updated the whole product to the extent that it now includes over 20,000 subjects. The new 1997 version of the Epic Interactive encyclopedia is available now, it features a superb new updated multimedia interface, hundreds of film clips, images, sound samples and subject information text. The 1997 version now supports a multitude of new features inluding: Colour images, Full-screen filmclips, National anthems, and a unique *Inter-ACT™* feature which allows you to interact with certain subjects like: chess, piano, etc. A superb reference title for the whole family.

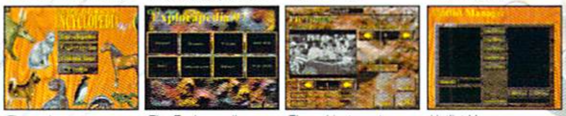
"I worked on this title for almost two years, and it still impresses me". *Vince Pike, Epic*

"It has to be said that the graphics set new precedents in Amiga multimedia presentation" *Graeme Sandiford, Amiga Format*
"Why is it you are the only company producing decent Amiga CD-ROMs" *G. Hamilton*
"If you're on the lookout for some interactive reference material then this fits the bill". *Tony Horgan, CU*

AS SEEN ON TV



The new main interface — *Kids Catagory selector* — *Export screen* — *Install & Setup*



The main menu — *The Explorapedia menu* — *The subject creator* — *Hotlist Manager*

AVAILABLE FOR ALL AGA AMIGA's (with 4mb+ ram & Hard drive)

	EPIC ENCYCLOPEDIA	GROLIER	HUTCHINSON'S
PRODUCED IN	1996/1997	1993	1991
NO. OF PICTURES	3000+	?	1300
MADE IN THE	UK	USA	USA/UK
AGA INTERFACE	✓	✗	✗
UPGRADABLE	✓	✗	✗
NO. OF SAMPLES	100's	?	163
SEARCH MODES	NORMAL/DEEP	NORMAL	NORMAL
FILMCLIPS	✓	✗	✗
SUPPORTED	✓	✗	✗
MUSIC	✓	✗	✗
Inter-ACT	✓	✗	✗

**Requires an Amiga 1200 or 4000, a hard drive, a CD-ROM drive and 4mb+ of ram. (6mb ram recommended)*

AMIGA BACK FOR THE FUTURE



1997 AGA version features include:
- **True 256 colour Multi-media Interface** unlike anything seen on the Amiga™
- **Produced in the UK** unlike most encyclopedias
- **Around *16,000* subjects covered** from Aalborg to Zygote
- **Hotlist editor** So you can create lists of subjects
- **Hundreds of samples** Music tracks and and over 200 samples
- **Thousands of pictures** Over 3,000 colour/mono pictures included
- **Dozens of film-clips/animations** Over 200 subject related film-clips
- **View many film-clips "full-screen"** New *Zoom* option
- **Now includes Music tracks** National anthems and different music styles
- **Import new subjects** from the Internet or from floppy disk
- **Export data to printer or file** and use it in your own projects
- **Kids Explorapedia** Eight kid's interactive play-about sections
- **Enhanced *speech* facility** Improved speech synthesis
- **Subject creator** Create your own subject data
- **Network compatible** Can be run through CD32 or CDTV

***Upgrade your existing version to the 1997 version.**
*Simply return your current CD-ROM version along with a cheque of just £11.99 plus P&P

CD262 £29.99

SCHATZTRUHE & GTI TITLES

Aminet set one	24.99
Aminet set two	24.99
Aminet set three	34.99
Aminet 14 October	12.99
Aminet 15 November	12.99
Aminet 16	12.99
Amiga Repair Kit CD	49.99
Amiga System Booster	19.99
World Info	19.99
Turbo Calc v2.1 Spreadsheet	9.99
Amiga Developers CD	14.99
Print Studio Pro	39.99
Magic Publisher (4cd)	49.99
Meeting at Pearls 4	9.99
Mods Anthology (4cd)	29.99

CREATIVE AMIGA CD-ROMS

LightROM *Gold*	19.99
3D Objects. (LWO & IOB)	9.99
Octamed Sound Studio	29.99
CD32 Network set 2	34.99
Personal suite Reduced	19.99
The Learning Curve	19.99
DEM Rom	14.99
Light ROM4	29.99
Octamed 6 CD Reduced	19.99
Xi Paint 4.0	49.99
1078 Weird Textures	19.99
3000 jpeg Textures	19.99
Into The Net (2cd)	19.99
Multimedia Backdrops	29.99
Sounds Terrific 2 (2cd)	19.99

WORLD ATLAS AGA

This superb highly rated Amiga CD-ROM World Atlas features flexible quick access to individual countries via continental maps, county list, capital or general index. Concise, informative county histories. Each country is supported by a series of maps depicting regional position, major cities, etc

CD220x £19.99

IMAGE CD-ROMS

GIF SENSATIONS (2CD)
Contains around 10,000 colour images suitable for DTP. *(CD128) £19.99*

NOTHING BUT GIFS
Features thousands of very high quality images. *(CD197) £19.99*

Both for just £30.00

LIGHT-ROM CD-ROMS

LIGHT-ROM 4 £29.99
The latest issue contains thousands and brand new objects for Lightwave™

LIGHT-ROM GOLD £19.99
Contains the best Lightwave™ 3D objects from LightROM issues 1, 2 and LightROM 3.

Both for £54.99

KARA FONTS CD

The Kara Collection™ is a professional and unique set of fonts, backdrops and tools for special effects in pictures, animations, titling and presentaions. £34.99

DEM-ROM

This CD-ROM contains over 1000 digital elevation maps(DEMs).
For use in VistaPro, Scenery, Animator or World Construction Set.

(£14.99)

Available Now!
A superb new VHS video featuring demo's of all our CD-ROM titles.
Order a copy now
Just £2.50 inc P&P

AGA EXPERIENCE 2

Reduced!

AGA Experience 2 contains 100% original AGA material including pictures, AGA demos, AGA games, and AGA tools. Most information runs direct from the CD.
**Normally £19.99*

(CD210x £9.99)

AMINET 16

Aminet 16 contains over 600mb of the very latest Amiga software, including games, demos, animations, music, tools, comms, patches, etc. Available for £12.99 or £10.99 when you take out a subscription.

(CD239) £12.99

DEVELOPERS CD v1.1

This CD was rated 95% in AF, it features all the tools and information, specifications etc, needed to produce and develop Amiga software. Includes the latest versions of the installer, CD pressing software, CDXL toolkit, etc.

(CD228) £14.99

We Price Match with any other ad in this magazine.

FREE

Choose any of the following CD-ROMs FREE with every £25 you spend!
Spend £25 choose one free CD
Spend £50 choose two free CD's etc.

Games EXPLOSION Contains hundreds of games. FCD263
DEMO MANIA Vol1 Contains hundreds of great demos. FCD264
DTP TOOLKIT Fonts, Clipart and many tools. FCD265
TOOLS FOR FOOLS Hundreds of great utilities and tools. FCD267
ANIMATION NATION Hundreds of stunning animations. FCD268
COMPUTA MUZAK Hundreds of music modules. FCD266

POSTAGE COSTS

1. **Standard.** (UK) £1 per CD (Overseas) £2 per CD
2. **Next Day Delivery.** (UK) costs £10 for upto 10 CD's
3. **Same Day Delivery** (UK) major towns/cities P.O.A
4. **Cash on Delivery** (UK) costs £17 for upto 10 CD's

news

By Hugh Poynton

World of Amiga

More details are emerging about the World of Amiga Show in May. Contrary to some reports, there will only be one major Amiga show this year, instead of two as some reports have suggested. Gasteiner boss Vas Shah has confirmed he will not be staging an Amiga event in March. He will instead be supporting the World of Amiga show in May. In a joint statement Vas Shah and Peter Brameld, head of show organisers PBA Events, said:

"The World of Amiga will be considerably strengthened as a result of the decision to combine the expertise of the two organisations. We will be working together to ensure the show is an even greater success. Gasteiner brings not only its commitment to Amiga technology but also its experience in the exhibitions field. Added to the proven skills of those at PBA Events, it means this year's World of Amiga is certainly an event not to be missed."

Present at the show will be Nova Design's new ImageFX image processing and special effects package. Nova Design will be showing a demonstration film put together using ImageFX and its forthcoming Aladdin 4D package.

British companies will be much in evidence with Guildhall Leisure, Digita International, Epic Multimedia and ICPUG all participating. Epic will be demonstrating new additions to its CD range. Of particular interest will be the Epic Interactive Encyclopedia of the Paranormal and the Epic Encyclopaedia '97. The Encyclopaedia '97 boasts features such as Inter-ACT, zoom into text, zoom into pictures and national anthems.

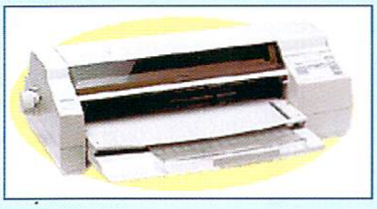
Power Computing will be launching a 12 speed SCSI CD Rom player and a 68060 accelerator board for the A1200/4000. Anybody spending more than £50 will get half their ticket price refunded by Power Computing, and anybody spending more than £100 will get a full refund.

Digita International will be offering special show prices with further reductions for those with proof of purchase and Guildhall Leisure will be bringing its entire range of titles, both new and re-released. For further information on the show contact Tony Leah on 0161 480 9811

NEW EPSON PRINTER

February saw the launch of the Stylus Color 1520, Epson's new high speed colour inkjet printer. The machine, designed to replace the Stylus 1500 printer, will be available for a recommended retail price of £899. According to Epson UK's Marketing Communications Manager Maria Foley, "The printer aims to target professional design engineers who suffer the expense of colour printing. Design engineers looking to reduce the high cost of colour output without compromising quality will find the answer in this new product. Small graphics houses are no longer limited by the costs normally associated with colour output and don't need to farm out work to expensive bureau services."

Due to the printers advanced 128 nozzle print head, the Epson Stylus 1520 will be able to produce eight pages per minute in mono and four pages per minute in colour. For more details telephone Epson UK Ltd on: 01442 61144



AMAZING ACCELERATORS

IAT International is in the process of developing a new range of Amiga accelerators that will enable a standard Amiga to run at speeds of up to 200MHz. The cards are to be made available for all machines with an 020+ processor and support a 68882 co-processor running at any speed. The 200 Mhz card will retail at around £120. A RISC card will also be available, it will enable all Amiga software to be run on the machine at speeds up to and, in the future exceeding, those of PPC upgrade systems.

IAT International is the internal Amiga market advisory body and, in addition to developing new hardware for the machine, IAT is currently working with Direct Software to open 10 more Amiga based stores around the UK.

LIGHT RELIEF

Demon Internet has announced that, on Comic Relief Day – 14 March, it will donate all joining fees to Comic Relief. The sum should be quite considerable – membership subscriptions cost £12.50 (+VAT).

In addition to this, ISP has put Comic Relief Web pages on its site containing interviews with stars such as Lenny Henry and Nigel from EastEnders. Demon will also donate 10 per cent of any comedy title purchased from its on-line bookstore to Comic Relief.



DEBUGGING DEBUT

Intangible Assets Manufacturing has launched the Enforcer V37 advanced debugging tool for Amigas equipped with a 68020/68851, 68030, 68040, or 68060 CPU. It uses the MMU to help detect stray pointers and access invalid memory. The Enforcer archive includes tools to help identify the exact location of bugs, including the line of source code in most C or Assembly code, as well as some other languages. Also including is a large on-line manual and examples as to how errors can be caught.

The original Enforcer (written by Bryce Nesbitt, copyright Commodore-Amiga) was instrumental in the development of AmigaOS 2.04 and the improvement of the quality of software on the Amiga. Enforcer V37 is a completely new set of code designed to provide even more debugging capabilities across more hardware configurations and with more options.

Information about Enforcer, the down loadable Enforcer archive and ordering information is available through the Enforcer Web page at http://www.iam.com/amiga/enforcer.html. Any questions about Enforcer should be directed to enforcer@iam.com

POWERPC CONVENTION TO INCLUDE AMIGA

The Amiga will be represented at Montreal's first annual PowerPC Convention in July. The convention will gather together an unprecedented number of Power PCs for the first time. Present will be BeBox, PIOS-ONE, A/Box, Amiga (PowerUP), PowerMac (and clones), IBM and Motorola machines. Much attention will be focused on the PowerPCs operating systems and software such as BeOS, pOS, MacOS, Linux, Solaris, and AIX.

The exhibition will be held at the Howard Johnson Hotel in Montreal, on the 19 and 20 July 1997. For more details contact:
Howard Johnson
(514)-842-3961
475 Sherbrooke West Street
Montreal (Quebec)
Canada H3A 2L9

NEW VERSION OF IMAGINE



Impulse (Infologic in the US) has just released the latest version of Imagine for the Amiga. Imagine version 5 includes Arexx and Cybergraphix support and, in order to boost sales, Infologic is offering Amiga users the chance to purchase the package for a price of $100 plus $10 shipping.
Contact
Impulse/Seron Christian
5 Rue Alfred de Vigny
30320 Marguerittes
France

TAEN DOWN UNDER

TAEN (The Amiga Education Network) has announced details of an initiative to support schools that use the Amiga as a learning tool. TAEN was established after the demise of Commodore Australia with the express intention of supporting the format in Australian schools and safeguarding the all important education market for the machine.

The purpose of TAEN is to provide an Amiga-based global facility open to all persons or organisations with an interest in the Amiga in the field of education. Through national representatives, information relevant to that country's education can be disseminated and exchanged.

The organisation intends to offer advice on the latest Amiga software and hardware suitable for education, supply names of appropriate contacts, arrange for demonstrations of, and training in, appropriate products, publish regular newsletters, identify areas of need, advise developers and publishers about them and, most importantly, promote direct interaction among educational institutions and individuals.

TAEN intends to have a national representative for each interested country, whose role it will be to fulfill the above requirements and act as a point of reference within their own country. They will also assist in developing and expanding The Amiga Education Network both nationally and internationally.

The aim is to increase TAEN's benefits to users and those developing products, to promote and arrange for the assessment of suitable Amiga education products, to arrange for the production of a regular Amiga-specific education publication and to advise of the special education needs for that country. For information contact:
TAEN, P.O. BOX 353, ARMIDALE
N.S.W, 2350, AUSTRALIA
Voice: 61+ 67 72-2100
E-mail: flinter@tpgi.com.au

news snippets

SAY CHEESE!

Following the success of its terminal mounted digital cameras, Californian based OmniVision Technologies is set to launch a cut price colour camera. The C3086 will be displayed at the CeBIT show this spring. It is the latest addition to OmniVisions family of CMOS video camera monitors and, as Robert Strohl, OmniVision's Director of Marketing and Sales believes, "...the ideal solution for PC video conferencing, video phones, video e-mail, digital cameras, video games and a wide variety of PC multimedia applications".

A few months ago OmniVision found itself in the Amiga news after it launched its AQCVid hardware/software interface for the Connectix Corporation's Quickcam digital camera.

ZIPPERWARE CLOSES

US Amiga retailers, Zipperware, will be closing as of March 2, 1997. The Seattle based Amiga Store is currently liquidating all merchandise. Anybody interested in contacting Zipperware can reach the company at:
Zipperware, 76 South Main St.
Seattle, WA 98104, (206) 223-1107
zipware@nwlink.com

Zipperware
SEATTLE'S LAST GREAT AMIGA STORE

VULCAN PERIPHERALS

Amiga games company Vulcan Software has decided to branch out into hardware manufacturing with the release of its PC Analogue to Amiga Joystick Adapters. The adaptors, available for £8.99, will be sold mail order alongside the company's expanding range of titles.

For more information take a look at the Vulcan Web site (http://www.vulcan.co.uk) or contact director Paul Carrington (Paul@vulsoft.demon.co.uk).



What a lovely pair

PHASE 5; PART ONE

On February 25, Phase 5 announced it was bringing out the CYBERSTORM PPC PowerPC based accelerator for the Amiga 3000(T), the 4000(T) and systems with compatible CPU-slots. These new accelerators will enable processing speeds more than 10 times faster than the current fastest 68K based accelerators.

The accelerators are being designed as upgrade boards for existing Amiga systems and incorporate Phase 5's dual processor technology, where a fast Power PC RISC processor works in unison with a 68K processor (in the case of the CYBERSTORM PPC either a 68040 or a 68060 CPU). The AmigaOS3.x still runs on the 68K processor whilst the Power PC CPU is supported by a comprehensive PPC Library developed by Phase 5.

The CYBERSTORM PPC will initially be available with the fast PowerPC 604e processor in clock speeds of 150, 180 and 200 Mhz; the socket for the 68K companion processor accepts either a 68040 or a 68060 CPU. It provides a 64-bit wide, extremely fast memory and the 200Mhz version of the CYBERSTORM PPC provides a performance that goes far beyond most PC systems available today.

PHASE 5; PART TWO

Phase 5 has also released the Blizzard 603e PowerBoard for Amiga 1200 and A1200 based Tower Systems. The PowerPC based accelerator promises to improve the performance of the Amiga way beyond what is possible with a 68K based accelerator. Although a price hasn't been decided, we are assured that it will be extremely competitive.



THE LAIR WEB SITE ANNOUNCES LAUNCH

A new Internet based e-zine, The Lair, has been launched. In addition to covering many aspects of IT, The Lair pays particular attention to the Amiga platform.

Of interest to Amiga owners is the exclusive interview with Steve Jones of HiQ Ltd, developers of the Siamese System, and players in the future of the Amiga. Also included in the premier issue is an analysis of America's most notorious hacker, Kevin Mitnick, and a look at the Amiga's position in the computing world today. http://amigaworld.com/thelair/



FRIENDLY MONITORS

Hitachi Business Systems has increased its current range of monitors with new 15 inch, 21 inch and LCD monitors. The CM500ET monitor is a high resolution and high frequency monitor purposefully designed for office use.

The monitor offers microprocessor controls, power saving features that conform to Energy Star requirements and has a low radiation 280 x 210mm screen. The CM500ET updates at 85 Hz (a vertical refresh rate fast enough to avoid discomfort for the user) and offers less magnetic emission than many other monitors.

In addition, Hitachi is releasing the new high spec 21 inch CM802E and CM802ET monitors. The monitors offer high performance with 200 Mhz clock speed and new CRT design. An Invar shadow mask ensures that a flatter, sharper image is dispalyed. Like the CM500ET, the 21 inch monitors are designed to cut down on the electrostatic and electro magnetic field emissions and meet energy saving guidelines.

IMAGE LIBRARY

GTI, the German based Amiga software company, is releasing a compilation CD of fractal images. The CD includes 350 high quality fractal images which can be viewed under Amiga-DOS, MS-DOS or MS Windows. The recommended retail price for the CD will be DM39. For further details phone (49) 8383 9519.

AIRMAIL 4.0

GTI is also releasing an e-mail management program for the Amiga. Air Mail 4.0. The package aims to make the sending and receiving of e-mails faster and easier and supports the encoding and decoding of mail using MIME and external text editors. The package requires Workbench 2.1 or above, AmiTCP/IP version 4.0 or above and Miami, Mlink or Termite.



Double the number

USA news

by Katherine Nelson

NewTekniques, a new magazine aimed at users of NewTek products such as LightWave, Video Toaster and Video Toaster Flyer, has just announced that, in 1998, it will switch to a bimonthly release (although during 1997 it will remain a quarterly magazine). The editor in chief, Joe Tracy, is the former editor in chief of the Video Toaster User magazine, which is no longer being published.

NewTekniques keeps in close contact with NewTek to maintain the usefulness and reliability of their information. The magazine features tutorials, reviews and tips and techniques for using NewTek products, as well as information on forthcoming NewTek products. Those people subscribing before June will receive a special NewTek limited edition item. The identity of this item will not be announced until the NAB convention in early April.

Subscriptions to NewTekniques cost $32US. This covers the three issues in 1997 as well as the six issues in 1998. Cover price is $6.95US. For more information, e-mail jtracy@main.rosenet.net.

Souped up spider

amicrawler.com announced that it has added more features to its search engine, amiSpider. amiSpider searches the full text of the over 3000 Amiga documents in its library and displays the results in order of relevancy. It features a multilingual interface and will detect the source country of the person accessing the Web page to determine the default, as well as gear the weight of the search findings towards the language being used in the search. There is a Top 20 list of the most often searched sites. Also, amiSpider lists the news sites which have updated or changed their information. To add a site to the amiSpider library, just send the URL of the page to dtiberio@amicrawler.com.

amiSpider also features free banner advertising for those who have joined the Amiga Web Network. The advertising on amiSpider is targetted to the users depending on the user's operating system, browser, and location. amiSpider can be found at http://www.ami-

Nova moves

Expansion has caused Nova Design Inc.'s mailing and shipping addresses to change suite numbers. All other information remains the same. The new address is Nova Design Inc., 1910 Byrd Avenue, Suite 204, Richmond, VA 23230, USA.

Boom boom

The ClickBOOM Web site has moved to http://home.ican.net/~clkboom/. A new upgrade to Capital Punishment 1.1 can be found there. It provides Apollo board compatibility, removes the need for 040.library or 060.library and fixes some loading problems found in the previous version.

Power convention

PowerCon'97 is a PowerPC convention geared toward users of all machines utilising the PowerPC line of processors, such as the PowerUP Amiga, BeBox, PIOS-ONE, A/Box, PowerMac and its clones, as well as IBM and Motorola machines. Among the current list of attendees are PIOS, who is working on a PowerPC machine called PIOS-ONE and ProDAD, who is developing pOS, a new operating system for PowerPC machines that has the feel of the Amiga operating system.

This convention will be replacing the Montreal Amiga Conventions of previous years and will take place at the same venue as last year's Amiga Convention. The hotel is the Howard Johnson, 475 Sherbrooke West Street, Montreal, Quebec, H3A 2L9, Canada, tel 514-842-3961.

The show is open 10am-8pm on Saturday 19 July and 9am-6pm on Sunday 20 of July. Tickets are $7CDN. Rental of tables for dealers and developers will cost $150CDN for one day and $250CDN for both. The table is 6' x 3', and includes chairs. Individuals who bring their own PowerPC system(s) may be able to get a free table, available on a first-come, first-serve basis and are smaller than the other tables.

For more information about PowerCon'97, mail to moogy@datrox.ca, tessier@moebius.qc.ca, or steve.pruneau@mcbbs.magicnet.com, or visit http://www.moebius.qc.ca/PowerCon97/. Also, call 514-649-9756 and ask for Frederic or 514-933-8095 and ask for Jeremie. The organisers of PowerCon'97 can be reached by writing to Frederic Tessier, 922 Deschamps, Sainte-Julie, Quebec, J3E 1N9, Canada.

Amiga merge

National Amiga has announced it has created a new company, which they have incorporated. National Amiga is now a division of that company, ARCHTECH Inc.

It has also released a PC keyboard to Amiga adapter in conjunction with MicroBit. Two other hardware projects are in the pipeline and are expected to be released soon. The Insert104 keyboard adapter utilises the Windows keys as the Amiga keys, as well as turning unused keys into special functions keys. Orders are being taken now for $39CDN.

National Amiga's Web site has been updated and redesigned. Documents have been shuffled between machines to make document loading faster, but the server is still running on Amigas.

Many new and favourite products are in stock. The CyberVision64/3D in particular are available for $479.95CDN. 1084 monitors are also in abundance. National Amiga also has a new employee, Jason Norwood, to be helping with order processing and shipping. For more information on any National Amiga product, price, etc., visit http://www.nationalamiga.com/, or call (519) 858-8760

NATIONAL AMIGA
AMIGA PRODUCTS AND SERVICES INTERNATIONAL

Contact point

Joe Tracy, Editor in Chief
NewTekniques Magazine
131 West First Street
Deuluth, MN 55802-2065
USA

Nova Design, Inc
1910 Byrd Avenue
Suite 204
Richmond, VA 23230
USA
http://www.novadesign.com
bob@novadesign.com

amicrawler.com
http://www.amicrawler.com
dtiberio@amicrawler.com

ClickBOOM
http://home.ican.net/~clkboom/

PowerCon'97
Frederic Tessier
922 Deschamps
Sainte-Julie Quebec
J3E 1N9
Canada
http://www.moebius.qc.ca/PwerCon97/

National Amiga
111 Waterloo St. #101
London Ontario N6B 2M4
Canada
Phone: 519-858-8760
http://www.nationalamiga.com/

Paxtron CORPORATION — AMIGA REPLACEMENT CHIPS AND SYSTEM UPGRADES — Paxtron CORPORATION

Paxtron is North America's largest wholesale supplier of Amiga replacement and upgrade chips

REPLACEMENT & UPGRADE CHIPS (Factory New)

Item	PRICE
1.3 ROM O/S	$12.50
2.04 ROM O/S	$19.95
2.05 ROM (V37.350) (A500 & A2000)	$19.95
2.04 ROM A3000 (Set of 2 Rom 0/1)	$34.50
2.1 Workbench for floppy users (complete O/S without support file)	$7.95
3.1 ROM (A500/A2000)	**$49.95**
3.1 ROM (A3000/A4000)	**$57.50**
3.1 ROM (A1200)	$57.50
3.1 ROM(s) Software/Manual	$124.00/$137.50
ROM Switch/Switch-Itt with speaker	$17.50
3.1 manual only	$69.95
3.1 Software	$10.00
3.1 Workbench for floppy users (complete O/S without support file)	$7.95
A2091 7.0 ROM Upgrade	$19.95
A2620/30 7.0 ROM Upgrade	$19.95
8520 CIA	$11.95
8372A/8375 Agnus with diagnostic disk/guide	$29.95
8375-B (2MB) (A3000) 318069-03	**$25.50**
8375-10 Agnus (318069-10) PAL	$17.95
8375-18 Agnus (318069-18) 2 meg PAL	$15.95
Paula (8364) A500/A2000	$10.95
Denise (8362) A500/A2000	$10.95
Super Denise 8373 w/diagnostic disk	$19.95
Gary 5719 A500/A2000	$10.95
Buster 5721 (A2000)	$16.95
68000-8MHz CPU (DIP)	$11.50
68000-16MHz CPU (DIP)	$22.50
68030-RC50 PGA	$84.50
68882-25 PGA	$24.95
Western Digital SCSI chip 8A	$24.95
Video Hybrid - (A500 390229-03)	$9.95
GVP Upgrade Chip Series II	$24.95

SURFACE MOUNTED DEVICES (For A1200, A3000, A4000, CD32)

Item	Price
8520 PLCC (391078-02)	$19.50
Amber (390538-03)	$24.50
DMAC 4 (390537-04)	$34.50
Lisa (391227-01)	$24.50
Ramsey (rev.4) 390544-04	$19.95
Ramsey (rev. 7) 390541-07	$36.50
Alice 8374 (391010-01)	$19.95
Gal (XU9) (390123-01))	$21.95
Gayle (315107-02)	$19.95
Budgie (391425-01)	$33.95
Super Denise (391554-01)	$29.95
Paula 8364 (391077-01)	$27.95
Gary (390540-02)	$32.95
Super Buster Rev. 11 (390539-11)	**$34.50**
Bridgette (391380-01)	$29.50
Video DAC (391422-01)	$19.95
68000CPU (390084-07)	$13.95
68020-16 (391506-01)	$18.95
MC 68882RC25A PGA New (390434-01)	$19.95
MC 68882RC20A PGA	$30.00
MC 68882RC33A PGA	$37.50
XC 68882RC40A PGA	$69.95
MC 68030FE25B QFP (390399-05)	$19.95
MC 68030RC50 PGA	$79.95

MOTHERBOARDS (Factory New)

Item	Price
CD32 (no RAM memory) NTSC	$89.95
CD32 complete with RAM/tested NTSC	$109.95
CD32 complete with RAM/tested (PAL)	$89.95
CD32 replacement CD mechanism	$39.95
A500 (rev. 3) inc all chips	$39.95
A500 (Rev. 5/6)	$89.50
A600	$134.00
A1200 (NTSC) Limited quantity 3.0 O/S all memory New	$300.00
A1200 (PAL) Limited quantity 3.0 O/S all memory New	$300.00
A2000 LATE Rev. 8372/2.05	$399.95
A3000 (16MHz)	$264.50
A3000 (25MHz)	$294.50
A3000T (Tower) 25MHz	$389.95
C64 (refurbished, tested all chips)	$29.95
C64 untested, all chips clearance	2/$25.00

AMIGA FLOPPY DRIVES (Factory New)

Item	Price
Amiga "Q-Drive" 1241 CD ROM Drive for the A1200	$179.95
High Dens. External floppy for all Amigas	$114.95
High Density Internal Floppy Drive:	
A4000	$104.95
A2000	$109.50
A500 Internal 880k	$38.95
A600/1200 Internal	**$39.95**
A2000 Internal 880k	$39.95
A3000 Internal 880k	$39.95
A4000 Internal 880k	$49.95
CD32 Replacement CD mechanism	$39.95
1541 (refurbished)	$33.00
1571 (limited quantity)	$44.00

POWER SUPPLIES (Factory New)

Item	Price
A500	$38.95
A500/A600/A1200 Big Ft. (200 Watt) Micro R/D	$79.95
A500 power supply (used) 220 volts Europe	$19.95
A590	$19.95
A1200 110 volts original factory	$38.95
CD32 Original / Factory (110 volts)	$21.95
CD32 Original / Factory (220 volts)	$14.95
CD32 Big Foot (200 Watt) Micro R/D	$74.50
A2000 110/220V. internal original	$89.95
A2000 Big Foot (300 Watt) Micro R/D	$144.50
A3000 internal (110/220 volts)	$110.00
A3000 Big Foot (250 watts) Micro R/D	$144.50
A3000 Tower	$124.00
A4000 internal (110 volts)	$119.00
A4000 int. 300 Watt Big Foot (exchange)	$169.95
1084S Phillips Flyback Transformer only	$29.95
1084-D1 Phillips/Daewoo Flyback only	$38.50
1084-D2 Daewoo Flyback Transformer only	$38.50
1084S new Motherboard/Flyback	$69.95
1084S power supply board (refurbished)	$29.95
C64 nonrepairable	$14.95
C64 repairable	$19.95
C64 5.2 amp Heavy Duty (also 1750 REU)	$39.95
C65 110 Volt	$21.95
C128 external 5.2 amps	$39.95
1541 II/1581	$7.50

KEYBOARDS (Factory New)

Item	Price
A500 (limited quantity)	$39.95
A600	$26.50
C128D (limited quantity)	$24.95
A1200	**$34.95**
A2000 (Amiga Technologies)	$74.50
A3000 (Amiga Technologies)	$74.50
A4000 (Amiga Technologies)	$74.50
A2000 keyboard adapter to A4000	$8.95
A4000 keyboard adapter to A2000A/3000	$8.95
KB100 adapter to use with IBM keyboards	$49.95

ADD ON BOARDS (Factory New)

Item	Price
68020-030 (A4000)	$67.95
A2058 (ØK) (A2000) Expansion board 8K	$69.95
A501 original Ram Exp. – 512K (A500)	$17.95
Microway Flickerfixer	$224.00
Slingshot Pro/pass thru (Micro R/D)	$37.50
A1050 RAM Expander (A1000) 256K	$10.95

APOLLO ACCELERATORS

Item	Price
1230 Lite 25MHz 68030 W/MMU+FPU for A1200 computers	$139.95
1230/50MHz 68030 for A1200 computers	$239.00
1240/25MHz 68040 for A1200 computers	$369.95
1240/40MHz 68040 for A1200 computers	$449.95
1260/50MHz 68060 for A1200 computers	$729.95
1200 SCSI Module for Apollo A1200 accelerators	$129.00
2030/25MHz 68030+68882+SCSI-2 for A2000	$299.95
2030/50MHz 68030+68882+SCSI-2 for A2000	$389.95
2040/25MHz 68040+SCSI-2 for A2000	$449.00
2040/40MHz 68040+SCSI-2 for A2000	$529.00
2060/50MHz 68060+SCSI-2 for A2000	$849.95
3060/50MHz 68060+SCSI-2 for A3000 Desktop	$829.95
3040/40MHz 68040+SCSI-2 for A3000 Desktop	$559.95
4040/40MHz 68040+SCSI-2 for A3000T & A4000(T)	$559.95
4060/50MHz 68060+SCSI-2 for A3000T & A4000(T)	$819.95
Mini Meg 2Mb Chip RAM Board	$185.00
SX32	$279.95

PHASE 5 ACCELERATORS

Item	Price
Blizzard 1260 Turbo Board	$749.95
Blizzard 1230-IV Turbo Board	$269.95
Optional Blizzard 1260 or 1230-IV SCSI Kit	$169.95
Blizzard 2060 Turbo Board	$849.95
Cyberstorm Mark II 060/50MHz	$849.95
Cyberstorm Fast SCSI-2 Module	$179.95
CyberVision 64/3D 2Mb	Call
CyberVision 64/3D 4Mb	$389.95
CyberVision 64/3D MPEG Module	Call
CyberVision 64/3D Scan Doubler/Monitor Switch	$139.95
CyberGraphX Software	$49.95

MOUSE CONTROLLERS (Factory New)

Item	Price
Amiga 1352	$22.50
Wizard 3-button (for all Amigas)	$22.95
A4000	$26.85
Amiga CDTV	$15.95
Amiga A1200 mouse port replacement kit	$7.95
CD32 controller	$11.75

DIAGNOSTICS

Item	Price
Advanced Amiga Analyzer (see below)	$59.95
Final Test diagnostic disk by Amiga	$7.95
Amiga Troubleshooting Guide	$7.95
Commodore Diagnostician II	$6.95
Complete Service Manuals: A500, A500+, 590, A1000, 1230 printer, 1802, 1902, 1902A, 1934, 2002, 2091, 2300, 2630, CDTV, 1581, C65	$19.95
A500 schematics, A600, 1084S, 1084S-D1, 1084ST, 1936A, 1960, A2000	$24.00
A1200, A3000, A3000T, A4000, CD32	$39.95

CLEARANCE SALE

Item	Price
A500 Computer (NTSC) with P/S	$119.95
A520 (New) Video Modulator Adapter.	$12.50
2.04/3.1 ROM Switch - (Switch Itt) with speaker	$17.50
15-23 pin adapter cable	$19.95
Monitor Cables - 30 Different types	CALL
Monitors: 1084S, 1802, etc	CALL
Laser printer memory board ØK (All HP units)	$24.95
Sony QD6150 data cartridge	$7.50
Joystick - Captain Grant (for all Amigas)	$2.99
1x4 S/C ZIP for A3000	$8.00

★ ONLY AT PAXTRON ★

Amiga A3000 (25MHz) Computer

Includes:

- motherboard (factory refurbished), new keyboard, complete A3000 service manual, user manual and 90 day warranty.

$495.00 (plus UPS)

Amiga A3000 Computer (in kit form)

Includes:

- A3000/16MHz (factory refurbished) motherboard with 2 megs of RAM (25MHz version, add $35.00).
- New A3000 Power Supply (110 or 220 volts).
- New A3000 Floppy Drive.
- New Daughter Board.
- Amiga 3000 Mouse
- Full A3000 Service Manual (valued at $39.95).
- User Manual.
- All Cabling.
- 90 Day Warranty (on motherboard only).

$439.50 (plus UPS)

ADDITIONAL OPTIONS AVAILABLE

Ramsey 7 Upgrade
DMAC 4 Upgrade
Super Buster 11 Upgrade
} PACKAGE PRICE $79.95

Item	Price
Western Digital SCSI 8A	$23.95
3.1 Operating System Upgrade ROM	$57.50
3.1 ROM Software (package of 7 discs)	$7.50
3.1 Books/Manual (without disks or ROM)	CALL
1 x 4 Static Column ZIP (8 zips = 4 megs)	$7.00
A3000 Keyboard	$67.50
Hard Drive	CALL
AmiFAST 3000 Adapter (ZIP to SIMM adapter)	$74.50
Rack Mounted A3000 Cabinet	$54.00

Spare A3000 Motherboards - See top half of ad (Motherboard Section) for prices

COMING NEXT MONTH
A low cost 25MHz and 33MHz accelerator for the A1200 that will "knock the socks off the competition."

ADVANCED AMIGA ANALYZER 2.0™

AN INEXPENSIVE DIAGNOSTIC ANALYZER THAT WORKS ON ALL AMIGAS

A complete diagnostic hardware and software analyzer (uses point and click software interface.) The analyzer cable plugs into all Amiga ports simultaneously and through sophisticated software, displays 8 screens to work from. Shows status of data ports, memory (buffer) checker, system configuration and auto test. Reads diagnostic status of any read/write errors from track 0 to track 79. Software automatically tells what errors are found and the chips/components responsible. 85 to 90% of the problems presented to service centers are found with this analyzer. Saves you lots of money on repairs and no end user or repair shop can afford to be without one. Don't be fooled by its low cost. Simply plug in cables from the analyzer box. This diagnostic tool is used by end users and Amiga repair centers worldwide and is the only one of its kind. Over 15,000 sold.

New low price **$59.95**

•• *New 2.0 Version* ••

Amiga "Q-Drive" 1241 CD ROM Drive for the A1200

The Amiga Technologies "Q-Drive" 1241 is a PCMCIA interface for the Amiga 1200 (CD32 emulator). It is a super fast CD-ROM drive equipped with a PCMCIA connector.

Price: $179.95 (Quantity pricing available)

★★★ WANTED ★★★

Get Cash for your A2000 computers.
New or Used (NTSC or PAL).
We pay top dollar. We also pay UPS shipping charges.

ATTENTION DEALERS

Paxtron has been appointed as a North American distributor for ACT Apollo and Phase 5 accelerators. Give us a chance to quote you our best prices.

New enlarged Web page: www.paxtron.com

Our web page is continually updated with latest products and price changes. Visit us and check it out. Enter your order there or by E-mailing us at paxtroncorp@rcknet.com.

ATTENTION DEALERS: If you would like to receive our dealer catalog fax us your letterhead.

Paxtron CORPORATION
28 Grove Street, Spring Valley, NY 10977
914-578-6522 • 800-815-3241 800-595-5534 • 888 PAXTRON • FAX 914-578-6550
Hours: 9-5 pm ET Mon.-Fri. • Add $6.00 UPS Charges • MC/VISA • Prices subject to change
E-Mail for orders & correspondence: paxtroncorp@rcknet.com *WE SHIP WORLDWIDE!*

DISCOVER NOVUS · AMERICAN EXPRESS · MasterCard · VISA



The coverdisks

One of the most useful programs around, **ToolManager**, updated and on this month's disk

Extracting Cover Disk Files

Before putting the cover disks anywhere near your computer, write protect them by moving the black tab in the top corner of the disk, so you can see through the hole. Doing this makes sure you cannot damage your disks in any way. There is also no reason why the cover disks need to be written to, so even if the computer asks you to write enable the disks, don't do it.

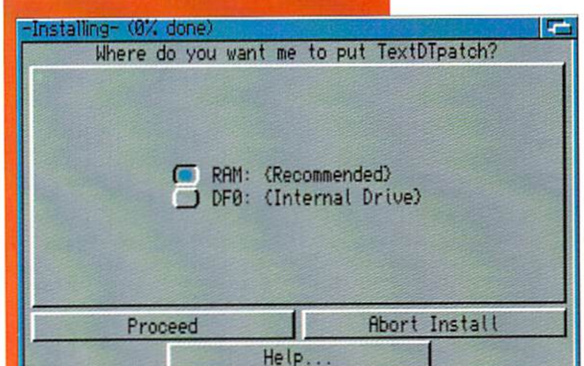
To extract any single archive, simply double click its icon, and follow the on screen instructions. If you want to extract the program to Ram, select the NOVICE level on the welcome screen, and press proceed once on the current screen, and then again on the next. The program can then be found in your Ram disk. Normally most programs need further installing, so read the documents on how to do this.

Hard Drive Users

Hard drive users do not have to boot with the first disk, but you must make sure you have the Amiga's *Installer* program in your C drawer. To make sure your hard drive has the correct files in place double click on the SetupHD icon. This will check if you have the Installer program and if not will copy it across. Do not worry as it will not write over any existing files.

All you hard drive owners will find MultiExtract very useful. It is a separate method of extracting the cover disk files. It allows you to extract a number of files in one go, to your hard disk or Ram.

When you run MultiExtract, you will be presented with a number of check boxes, each representing one of the programs on that cover disk. Just de-select all the programs you do not want extracting, and then press proceed. All the selected programs can now miraculously be found in the selected destination.



This is MultiExtract for all you sensible people with hard drives

ToolManager V3

Author: Stefan Becker Requires Workbench 3.0 ● Magic User Interface

Once you have this program installed on your Amiga, you will wonder how you ever managed without it. The previous version was pretty much a permanent fixture on my hard drive and I have had many years of flawless use out of it.

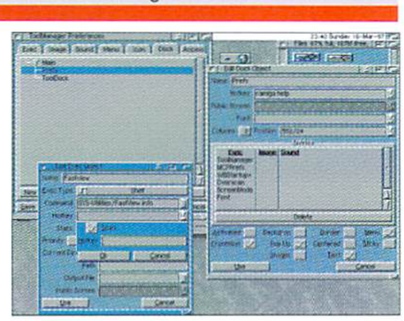
So what is this little marvel? Well, quite simply it lets you add all manner of short cuts to programs. You can add menus, key board short cuts, Workbench app-icons and even create what are known as 'docks' – all controlled from the one program.

This latest version is more of a interface overhaul than a complete upgrade. Obviously there is the jump to MUI, but there have been some small tweaks, such as keyboard scanning that means you don't have to type in keyboard shortcuts, they are read automatically. Drag and drop now exists internally in the program so you can drag executable programs to the dock window to add it to the list.

If you have never used ToolManager before it may seem a little overwhelming when you first run it, but once you understand how it all works it is very easy to use. The program only consists of a few library files, a preference program and the start program that goes in the WBStartup drawer. All these are copied for you by the installer, so there is no need to worry about any of it.

When everything is in place you should run the preference program, if you already have a ToolManager configuration it will still be able to use this, but you may want to start afresh. For newbies the main part of ToolManager revolves around the Exec list, if you want to add a program to ToolManager you simply drop it in this list. This brings up a new window describing what ToolManager calls the program and where it is on your Amiga.

If you are a novice you should leave this stuff alone, it is fine as it is, the only thing you



If you have never used it, you don't know what you're missing. The most useful Amiga tool around

may want to do is add a keyboard short cut. To do this click on the popup gadget at the end of the keyboard short cut text box, click the scan tick box and press the keyboard combination you want to run the program. Select OK, and then Use and you have added a program to ToolManager. The same process can be done for images and sounds. ToolManager allows you to add icons to Workbench and its docks for sounds when programs are launched. You can add new images and sounds by dragging them to the appropriate list.

Once you have a few programs set up in the Exec list, you can start adding them to the Menu, Icon and Dock lists. Adding menu items and icons is a straight forward process of creating a new object entry and dragging the appropriate program from the Exec list over to the new object window.

The part of ToolManager that I like the most are the docks – they are windows that can be opened on any public screen that let you run any ToolManager exec. They can be a little tricky to set up, due to the silly number of options you have, but if you play around with them for a little while you'll soon find out what all the options do. Alternatively, you could use the on-line context sensitive help.

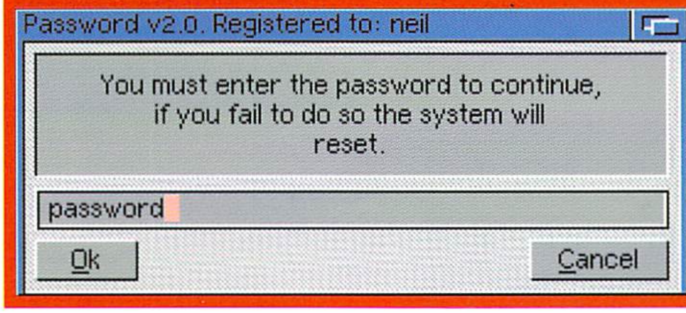
PASSWORD

Author: Richard Hodger ● Requires Workbench 3.0

Here at Amiga Computing we are quite lucky, the set of Rottweilers guarding our office make sure any intruders silly enough to break in, will not have any hands left to mess around with our equipment (ooh er missus - ed). If however, you don't have a deterrent this effective, you may worry about people poking around your Amiga files.

Password adds simple protection to your system, to keep those prying eyes out. By replacing the LoadWb command in your startup-sequence you can stop people being able to load Workbench up. It will not stop an Amiga expert, but for anyone that does not know too much about the machine, it will do the trick.

The install script just copies the files across to their relevant places, and to set up Password you need to run KeyMaker and then SetPass to actually create your password.



Your name's not on the list, your not getting in. Password - a virtual bouncer for your Amiga

FAULTY DISKS

If you should find your Amiga Computing CoverDisk damaged or faulty, please return it to:

TIB Plc, TIB House, 11 Edward Street, Bradford, W. Yorks BD4 7BH.

Please allow 28 days for delivery

MODEP

Author: Andreas Kleinert
Requires Workbench 3.0

The Amiga's operating system is complicated, not as complicated as some, but it has its moments. With all the new bits added to Workbench 3.0, a command called BestModeID was among the new additions. This is supposed to tell programs which screen mode they should use to display pictures, as an Amiga with a multisync monitor has the ability to display an awful lot of different screen modes, many times more than the ScreenMode preference may make out.

Unfortunately it will not pick aspect correct screens, so the picture can look stretched either horizontally or vertically. This tiny little patch corrects the problem. It is of more help to graphic card owners, as it will automatically choose graphic cards screens as the first choice.

FILLER

Author: Matthias Scheler
Requires Workbench 2.04

Filler is a directory utility in the old Opus 4 style, you have two directory windows on the left and right of the screen. Allowing you to copy, move and do all those tedious file managing type of tasks. It's small-ish, quick and looks good thanks to it using the Amiga's normal Gadtools gadgets. You can change the screen mode and fonts to whatever you like.

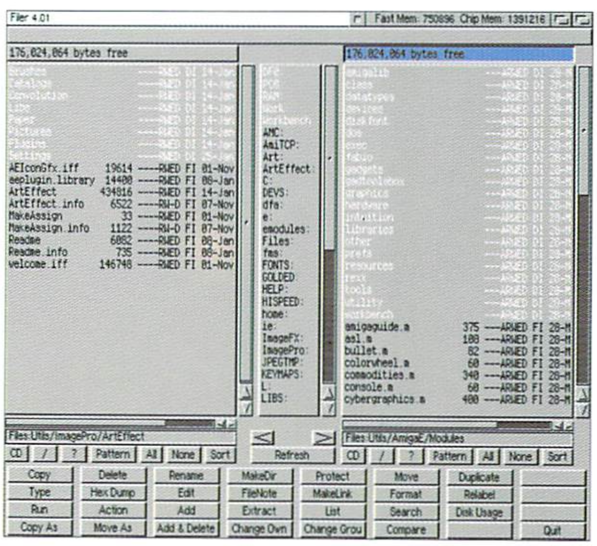
Possibly the only bit that could cause confusion is that it configuration file has to live in the S directory. If you need to add any file types you need to alter this file by adding a new file class. Refer to the documentation if you are having problems, or an example configuration is provided in the original archive. So this could be copied over to your S directory to give you a start.

QT v1.3

Author: Marcus Comstedt
Requires Workbench 3.0

A few months back we came across this rather spiffy QuickTime player for all AGA and lucky old CyberGraphX users. Now a little further along the line, there is an update. With a few bug fixes, added support for new sound and video modes (such as Jpeg videos), you should have no problem playing any QuickTime movies you stumble upon.

All the different options with QT are available through editing the Workbench tool types. CyberGraphX users have the luxury of being able to play movies in a normal Workbench Window, while us lowly AGA users will have to make do with fuzzy old Ham8 screens, a grey scale replay does help matters though.



Grey, drab but very functional. Lets face it, file managers are not very exciting

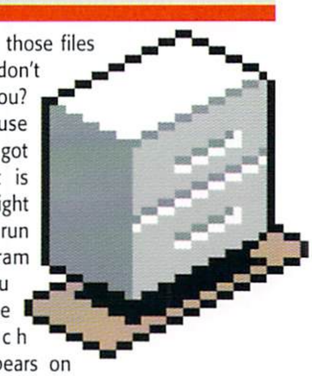
ATAPI 3.0 PNP

Author: Georg Campana
Requires Workbench 2.04

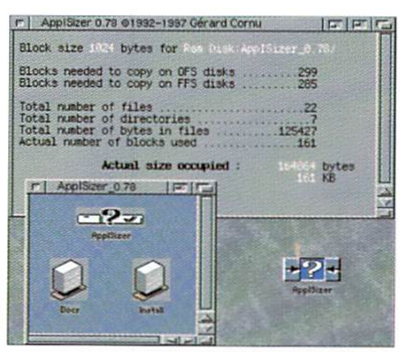
This is the latest CD driver for your Amiga, taking the old PNP (Plug And Play) acronym from the PC Atapi PNP is an easy one step solution to getting an Atapi CD-ROM up and running on your Amiga. As long as you have a CD drive already hooked up you can run the Installer and along with copying all the files over to your Amiga will allows you to select where your CD drive is and so create the DOS driver for you, no hassles no worry. Thrown in for good luck you get an AudioCD player as well as a CDXL player, if you have any CDXL videos.

APPISIZER

Author: Gerard Cornu
Requires Workbench 2.04



How big are those files there? You don't know do you? That's because you haven't got ApplSizer. It is all very straight forward, just run the program and away you go, a little Workbench Appicon appears on the Workbench and you can drop programs, directories or disks onto the icon and it will come back with all the size statistics you could possibly want.



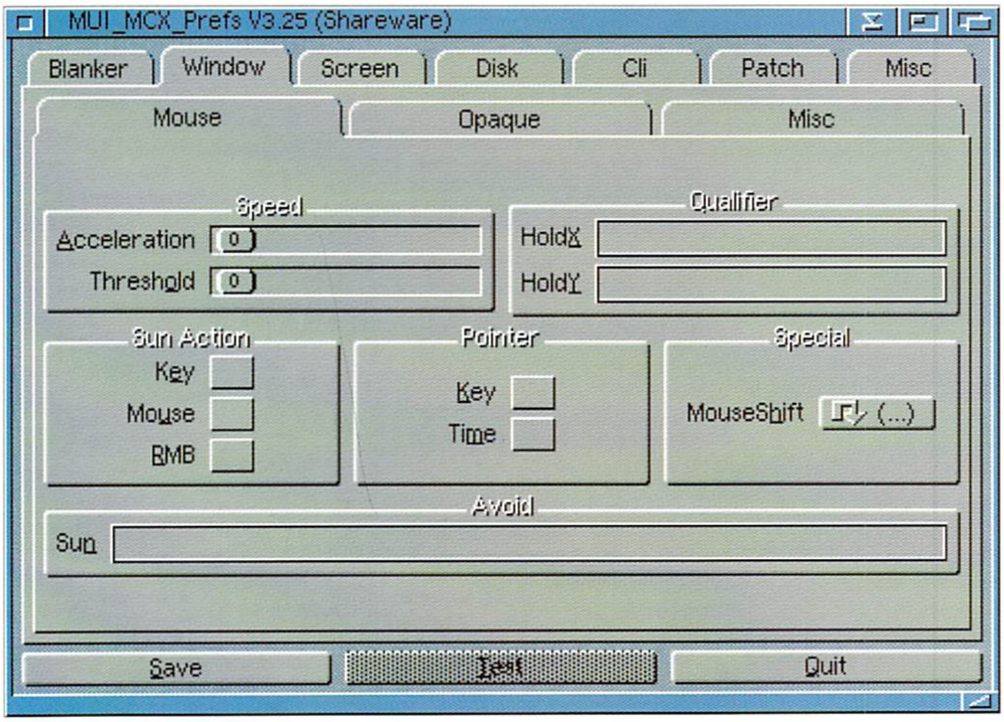
If your worried about size, ApplSizer might just be what you are looking for

MCX PREFS

Author: J Kempkes ● Requires Workbench 3.0 ● Magic User Interface

One reason why MultiCX is so small is that it has no interface, not even a separate one. All its bits and bobs have to be changed through normal the normal Workbench tool types. Normally this would be fine but as MultiCX has a shed load of functions the number of tool types gets a little overwhelming.

To help you out MCX Prefs is a well thought out front end for MultiCX. All the tool type options are laid out for you in one of those fancy looking MUI interfaces, all for your viewing pleasure.



Never have to touch MCX's tool types again, all thanks to MCX Prefs

The coverdisks

REMCARDS

Author: Dave Jones
Requires A1200/600

Another tiny program that quite simply removes all the software to do with the PCMCIA slot from the Amiga's memory. So saving a little bit of memory and helping your multitasking along a little as it does not have handle the PCMCIA interrupt.

MULTICX v2.63

Author: Martin Berndt
Requires Workbench 3.0

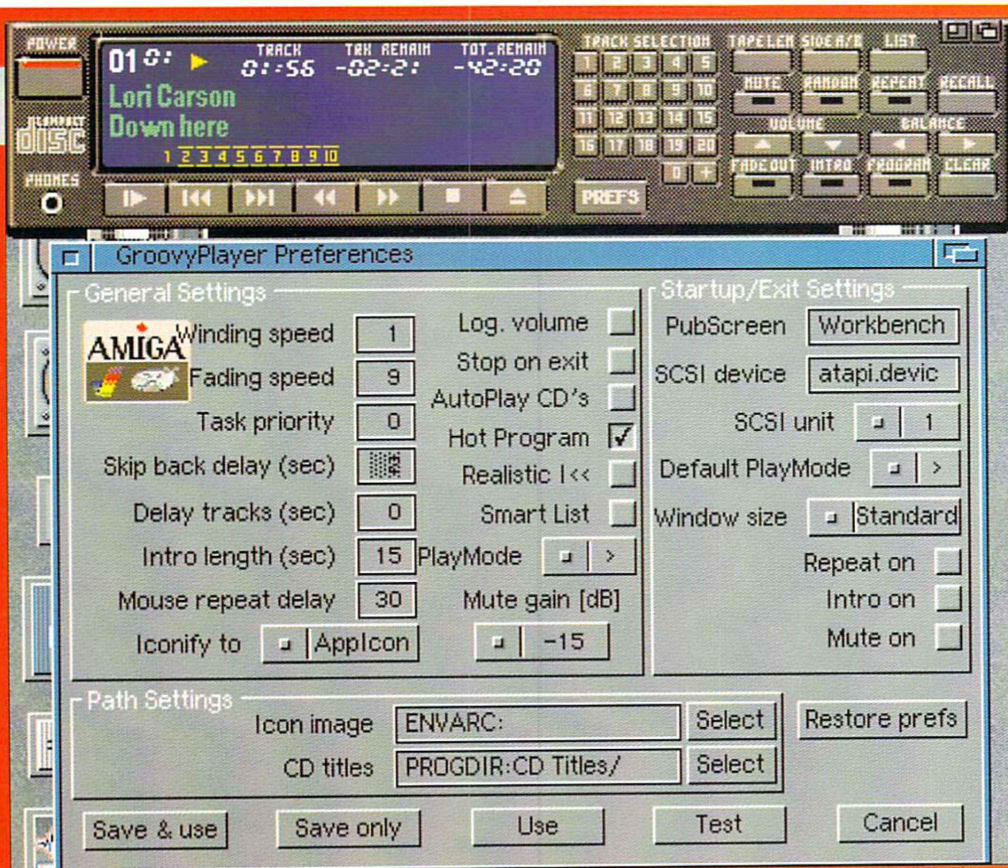
Almost as old as the hills, bit like Tym our art editor, MultiCX is the choice of the discerning utility purveyor. More petite than Kyle Minogue but as multifunctional as a Swiss army knife, MultiCX does loads of stuff (bit like me - ed) while taking up the minimum amount of room (ooh not like me - ed). If you think MCP is just that bit too big, then MultiCX is a great alternative.

GROOVY PLAY

Author: Micla Arpad
Requires Workbench 3.0

Any program that has groovy at the start of its name has to be good, and GroovyPlay is no exception. If you like small, specifically functional programs you can forget this. It gives you a big old colourful hi-fi type display with all the normal jiggery pokery you expect on a hi-fi. It looks good in eight colours, it looks better in 64 and it looks tops in 2546 colours, the choice is yours.

The most complicated part of setting up GroovyPlay is setting the device and unit number of your CD-ROM connected to your Amiga. Luckily it works with just about every CD device, even the Atapi device on this months cover disk. If you were using this on an A4000 the device would be called atapi.device, and the unit number should be one. If you have a SCSI device you will need to enter the SCSI device name and what unit number your drive are before you can use GroovyPlay.



Groovy is as groovy does, Neil Gump that's me

Casablanca

Macro System



Digital Video Editing For Everyone

- A Unique Video Editing Product
- No Computer Required
- Amazing Picture Quality
- CD Quality Stereo Sound
- Professional Effects & Titles
- Fast, Affordable and Compact
- Optional MiniDV / FireWire Module

From £ 1,999

What Is The Casablanca?

Casablanca is a device which allows anyone to edit video, simply, and in a non-linear fashion. It works by recording video scenes from a camcorder, on to an internal storage module. The scenes can then be trimmed, split into shots, and re-arranged at will. You can also add transitions between scenes, and professional image processing effects, plus new soundtracks, slow, quick or reverse sequences.

So, How Does It Work?

Casablanca connects between your camcorder and video recorder. You don't need any special monitor, as you can use your existing television. Using a Casablanca requires no computer experience. The controls and displays are clear, simple, and easy to understand. All video and sound information, plus effects and transitions are held on the storage module.

What Models Are Available ?

Casablanca is available with a choice of three storage modules. Module 2 can hold 31 mins of VHS, 16 mins of SVHS, or 10 mins of DV quality video. Module 4 offers double those storage times. Module 9 can hold 140 mins of VHS, 72 mins of SVHS, or 47 mins of DV quality video. The storage module is removable, and additional ones are available. This allows you to work on multiple projects simultaneously.

Technical Specifications

Full Motion JPEG Compression, CCIR601 Resolution (720x576 Pixels) at 50 Fields/sec. Internal capacity from 10 minutes to 4.7 hours, external storage expansion will give between 2.2 and 15 hours, depending on quality. Composite & Y/C Video in and out, on front and rear. RGB out via SCART on rear. Optional FireWire (P1394) module for connection to MiniDV camcorders with digital output (eg. Sony). 3 Tracks of Stereo audio, 16-Bit resolution at upto 44KHz sample rate.

Where Can I Get More Details ?

Casablanca is available from a number of specialist video retailers around the UK, and is also available by mail-order from Britains favourite ***AMIGA*** supplier :-

White Knight Technology

If you would like a Casablanca brochure, please call.

Tel : 01920 822 321 or Fax : 01920 822 302

Casablanca is distributed by DraCo Systems UK Limited

A sister company to White Knight Technology

White Knight Technology

AMIGA & Video Editing Specialists

PO BOX 38, WARE, HERTS, SG11 1TX



Phone 01920 822 321 9.30 - 5.30 Mon - Fri

WE ACCEPT Mastercard Visa, Delta and Switch 2.5% Surcharge on Credit cards, Not Switch / Delta

Delivery From £ 5

Email White_Knight_Tech @CompuServe.Com

Fax 01920 822 302

All Prices Include VAT @ 17.5%

A4000/T Accelerators

CYBERSTORM MK2	
68060, 50MHz	£ 509
68040, 40MHz	£ 319
SCSI Controller	£ 89

A1500/2000 Accelerators

BLIZZARD 2060 & 2040	
68060, 50MHz + SCSI	£ 525
AmigaOS 3.1 for 2060	£ 89
68040, 40MHz + SCSI	£ 309

A1200 Accelerators

BLIZZARD 1260 & 1240	
68060, 50MHz	£ 429
68040, 40MHz, Needs tower	£ 245
SCSI Controller	£ 85

24-Bit Graphics Cards

CYBERVISION 64/3D	£ 205
CV 64/3D Scandoubler	£ 75
CV 64/3D MPEG Decoder	£ 155
PICASSO IV + F/Fixer	£ 299

Monitors

17" Microvitec 1701	£ 479
14" Microvitec 1402	£ 259
14" Microvitec 1438S	£ 289
17" Hi-Res SVGA	£ 529
15" Hi-Res SVGA	£ 259
14" Hi-Res SVGA	£ 209

Genlocks

LOLA 2000	£ 349
LOLA 1500	£ 175
RENDALE 9402	£ 295
RENDALE 8802-FMC	£ 145

Video Digitisers

VLab Y/C Int. Last Few at	£ 199
VIDI 24 RT PRO Ext.	£ 249
VIDI 24 RT Ext.	£ 149

Networking

AMIGANET Ethernet	£ 179
ARIADNE Ethernet	£ 179
AmiTCP/IP Software	£ Call
LIANA Parallel 2m	£ Call

Hard Drives (3.5") Bare

2.1Gb SCSI-2	£ 329
4.2Gb SCSI-2	£ 749
9.1Gb SCSI-2	£1299
1.2Gb E-IDE	£ 179
1.6Gb E-IDE	£ 195
2.1Gb E-IDE	£ 215
2.5Gb E-IDE	£ 249
3.1Gb E-IDE	£ 285

Memory SIMMS

4Mb, 72 pin, 70ns	£ 25
8Mb, 72 pin, 70ns	£ 45
16Mb, 72 pin, 60ns	£ 89
32Mb, 72 pin, 60ns	£ 159

Cartridge Drives (SCSI)

ZIP 100Mb Ext. + Cable & Term	£ 155
ZIP Disks (x 5)	£ 79
JAZ 1Gb Ext. + Cable & Term	£ 465
JAZ Disks (x 3)	£ 255

CDROM Drives (Bare)

4 x Speed SCSI-2	£ 99
6 x Speed SCSI-2	£ Call
8 x Speed SCSI-2	£ 159
6 x Speed ATAPI / IDE	£ Call
8 x Speed ATAPI / IDE	£ 95

CD Writers (Bare, No S/W)

Philips CDD2600, SCSI	£ 349
HP 6020i, SCSI	£ 399
Master ISO CD-R Software	£ Call

Software

SCALA MM400	£ 199
SCALA 400 + ECHO	£ 299
TV Paint 3.6 (needs CybergraphX)	£ 749
ART EFFECT	£ 149
MAINACTOR BROADCAST	£ 165
DIAVOLO BACKUP PRO	£ 69
AMIBACK 2 Backup S/W	£ 39
CLARISSA Professional V3	£ 179
ADORAGE V2.5	£ 109
MONUMENT DESIGNER V3	£ 225
MONUMENT CREATIVE CD	£ 59
ANIMAGE V1	£ 99
AMIGA OS 3.1 A500/1500/2000	£ 89
AMIGA OS 3.1 A3000/3000T/4000	£ 99

Miscellaneous H/W

OKTAGON SCSI card	£ 89
AT-BUS 2008 IDE card	£ 89

Specifications ? or Advice ?

If you need technical details on any of our products, or advice on the most suitable items for your AMIGA, then call us on 01920 822 321

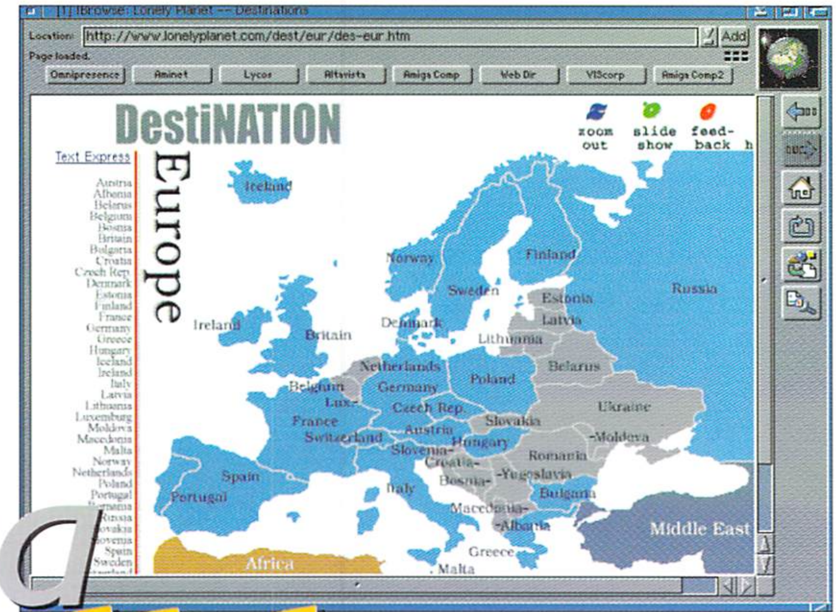
White Knight Technology only deal with Amiga's, and are reknown for excellent product knowledge, service & honesty.

If You Still Need Us, Then We're Still Here

Always Call First To Verify Price & Availablility Before Placing An Order

E & O E - 11/03/97

Kerumba! Pour Pina Coladas down your PC slot – Amiga Computing shows you how to plan your holiday using your faithful machine



Choose your destination from The Lonely Planet

Amiga On Holiday

It's that time of year, when you've decided you've just had enough. The rain is pouring down the window, the fax is having a breakdown, junk is piling into your 'in tray' and what's more, the coffee machine is jammed ...again. You have two choices – either flip out or go on holiday. Let's assume for this article you choose the latter.

Two weeks basking on a glorious sandy beach. What could be better? But how do you go about organising it? Sitting right in front of you is your Amiga and, believe it or not, you can use this very machine to plan your destination, brush up on a foreign language and, if you're driving there, you can even let the Amiga decide on a route. So sit back, relax and let the Amiga take the strain...

I Think I'm Turning Japanese

You could pick up a language at a somewhat slower pace. The Sasakawa Peace Foundation in the US sells a software package called Word a Day for $50.00 RRP.

Word a Day aims to teach elements of Japanese almost without the user realising it. This simple little program creates an icon on the Amiga desktop which, whenever clicked on will present you with the word of the day. Play a game and then try out your new word a few times, do some DTP and then repeat the word a few more times.

In this way, Sasakawa believes, your vocabulary will slowly but surely build up. The program also allows you to build up a dictionary of the words you have been learning. If you are particularly eager to pick up the lingo, the Word a Day folder can be made to stay visible while other work is done on the Desktop Amiga Language Exhibit Page

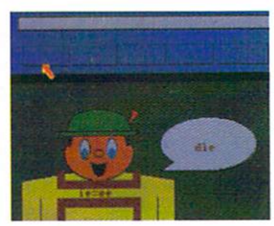
Also available from the Sasakawa Foundation is a Japanese language instructor featuring a spoken short phrases and words. Produced by Education Tutorial Software the package costs about $65.00 and includes sections that teach you to recognise both Japanese spoken and written words .

For more information on these products write to the Sasakawa Peace Foundation, 1819 L Street, NW Washington, DC 20036 USA. Alternatively, take a look at its Web site at: http://www.sasakawa.org/

Was is Das?







Are you one of those people who think that if, when you go abroad and the locals don't understand English, you should resort to talking them slowly and in a VERY LOUD VOICE? Well we're all Europeans now and that sort of thing is very unPC.

Using the wonders of modern technology you can easily find a language program that will help you pick up the lingo. A fair few language packages are available on the Amiga. First up is Micro German LCL, aiming to take the novice language learner right through to GCSE. It has 24 programs which cover written and spoken German exams. As well as being suitable for students, it is handy for the businessman as it generates business letters and also covers verbs and grammar.

LCL used to include a tape with its language packages but has now incorporated speech into the actual program. Although this does sound rather robotic, it works well and give the user an idea of the correct pronunciation.

10 out of 10 German covers all these features in various forms, although all the information from the national curriculum is there and can be printed off. For example, you can keep permanent records of your success, achievements and what you need to improve on.

The package aims to tech much of the content through fairly basic, but effective, games. The first is called the Cat. This curiously titled game is a multiple choice quiz, whereby the faster you answer the questions the more points you score. Covering topics such as family, home and sport, the package is perfect for simple, conversational German.

Where Do You Want To Go Today? (Somewhere without Microsoft slogans perhaps?)

Assuming you are connected to the Internet and have a suitable browser, you already have the world at your finger tips - virtually. First try typing 'holiday' into your search engine. OK, to save you lot the hassle, I'll do all the hard work and give you some suggestions of the best places to look. First of all, if you're young or a student and fancy an exotic and adventurous location, STA travel (http://www.sta-travel-group.com/home/index.html) gives a wealth of suggestions to take you off the beaten track. How about a carnival in Rio, for example, then on to the Iguacu Falls through Paraguay and Argentina up to the high Andean plain of Bolivia? Or maybe a camel trek across the desert?

The Lonely Planet is also a good travel resource and offers an insight into every country you could possibly think of. From the description here I think I could be quite tempted by Prague (please send donations to the usual address) or Florence even - I'm not fussy really.



Prague perhaps?

Strapped for cash? Don't worry you can still holiday with the best of 'em. Why not have a look at Budget Travel (http://www.budget-travel.com/) for instance? Here you can see how others get around on the cheap and find out about any special offers that are running.

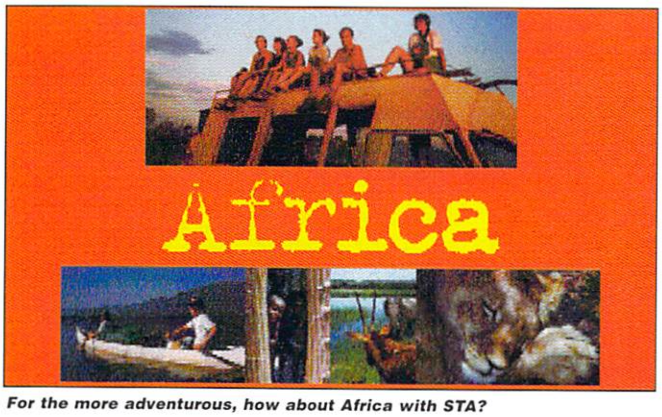
While you are researching your chosen destination, it's probably a good idea to check out the weather. CNN Weather (http://www.cnn.com/WEATHER/index.html) provides a very comprehensive guide to weather reports around the world. Click on one of the 100 or more cities and you will get a forecast for the next few days. Manchester was forecast rain, no surprise there then.

Before you leave, don't forget the all-important health jabs (have a look at http://www.cdc.gov/cdc.htm - the Centres for Disease Control and Prevention), and if you're visiting somewhere that could be a possible trouble spot, (Albania anyone? -ED) you'll be well advised to check out the various Foreign Embassy Web pages. Got all that? You're now ready for a vacation in the sun.

I Like Driving In My Car

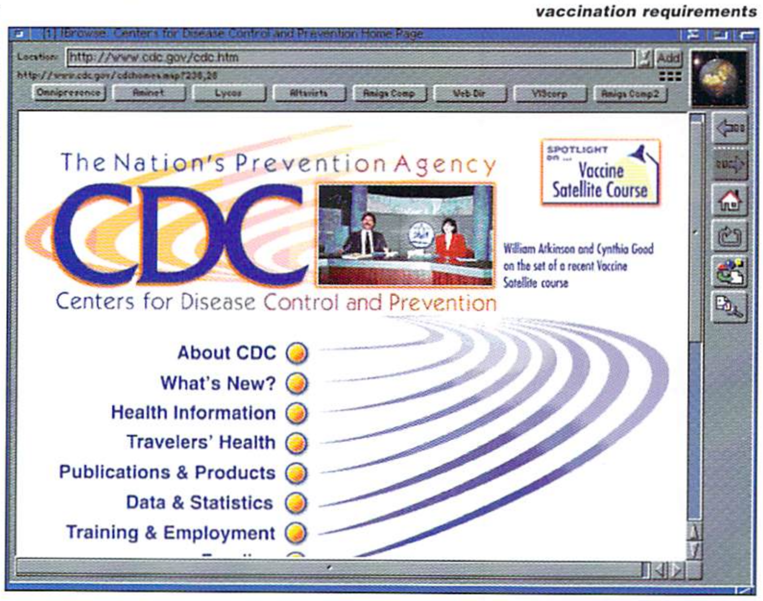
If flying to your chosen destination doesn't appeal, there is always the option of driving there. And thanks to the wonders of modern technology (or something) you don't even have to buy a road map. No more frantic arguments between husband and wife as they end up in Botswana rather than Bognor Regis because one of them had the map upside down. Now you can plan before you go - or more accurately - let the computer plan it all. The Amiga owner can buy something called AmiAtlas - a software package that decides the easiest, quickest or prettiest route for you to take.

It comes on two disks - one with the main program and one with the default map of Germany (it's a German package, you see). Maps of Switzerland, Austria, Belgium, France, Denmark UK and Ireland, Italy, Poland, Hungary and Czechoslovakia are also available - oh, and one is planned for Spain too. You can either use the maps singularly or join them together - ideal if you're the adventurous type and are thinking of travelling all over Europe. AmiAtlas can even work out how far and how long it would take you and how much petrol you will need - helping you estimate what the trip would cost you.



For the more adventurous, how about Africa with STA?

Don't forget to check the vaccination requirements



Last month we brought you the first framed capable Amiga browser and now, right on its heals, comes iBrowse

Noel *was framed*

There's nothing like a good bit of healthy competition to keep things moving along. Of course I'm talking about the current browser war that not only the current three Amiga browsers are embroiled in but also the 'big two' browsers. All this competition is very good for us, it makes sure no one programmer will rest on their laurels because if they do the others will quickly pull ahead.

With iBrowse being the first commercial Amiga browser it means that all you people that bought it are having access to your second free program update (well, as free as it is going to get). The update patch is freely downloadable from HiSoft's lovely Web site at http://www.hisoft.co.uk/ibrowse/support.html#download.

For a long time now, iBrowse has been the leader in the Amiga browsers but it was pipped to the frames post by Voyager. However, as any primary school child knows, the hare didn't win the race, mmm deep moral implications I'm sure.

Never again will your Amiga's screen be darkened by the, 'this site requires a frames capable browser. Get Netscape 3', useless bit of advice. More importantly than that is, so far iBrowse has displayed every framed site I threw at it, but not 'just' displayed them, displayed them as well Netscape 3.

Scroll bars only appeared in frames they were meant to, if possible frames were scalable and if specified frame outlines were hidden. Also one site that used an unusual way of linking through frames worked flawlessly, where as Voyager was thrown by it.



Voyager had problems navigating through this site, but no such problem with iBrowse. Manages to do a better job than Netscape 2

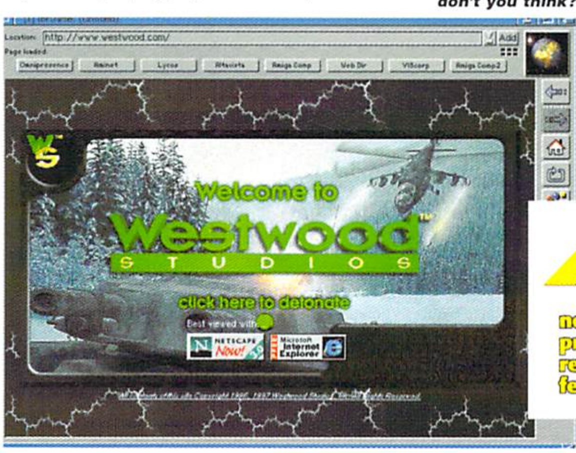
One thing I have been waiting for was an improvement in the colour display for AGA users using lower colour depths. Graphic card users have it easy, being able to run iBrowse on a high resolution 256 colour screen with no slow down, but with AGA monitor modes 64 colours is about as good as you are going to get.

Thankfully this has now been taken care of with added screen dithering. In 256 colours with dithering iBrowse makes almost as good a job at displaying pages as Netscape 3 on a Mac running a 256 colour screen – both in terms of layout and colour selection. For AGA users this means that for most pages a 64 colour screen is good enough to give a usable colour display.

If you are stuck with a 16 colour display, then luckily since version 1.02, there has been a grey scale choice that renders all on-screen colours as a shade of grey. Even with only 16 colours this gives a nice alternative and looks a lot better than the confused colours you would otherwise get, it's also very fast.

Now supported by iBrowse are something called cookies or magic cookies or tokens, depending on who you talk to. This is a way for Web designers to store information about you on your own hard drive, and every time you access a Web page this cookie is passed back to the Web server. This allows the Web server to keep a record of every page you visit. Some people do not like cookies; they talk about invasion of privacy, so they can be turned off, unlike Internet Explorer users.

iBrowse is still, in my opinion, the premier Amiga browser. There are still a few formatting tags it does not support such as percentage width for tables and the middle tag that sometimes crops up instead of centre. One thing I do miss is (on Windows and the Mac) if the TCP stack is not running, it is automatically started and dialed up for you, perhaps an Arexx script for Miami, Termite or AmiTCP could be included in the future?



Multiple hidden frames, with an animated GIF. Looks great in 256 colours, don't you think?



Hey look here, it's the classy Amiga Action Web page. A shameless plug for www.idg.co.uk/amigacomp/ but so what, I do that as well



For some reason I am using this as a standard test page, but Channel 4 has never looked so good on an Amiga

Bottom *line*

REQUIREMENTS

RED *essential* | **BLACK** *recommended*

MUI v3.8

4 Mb RAM 030/040 Processor

PRODUCT DETAILS

Product	iBrowse v1.1
Supplier	HiSoft
Price	£29.95
Tel	0500 223 660
Email	sales@hisoft.co.uk
	WWW: http://www.hisoft.co.uk

SCORES

Ease of use	95%
Implementation	90%
Value For Money	87%
Overall	92%

Weird Science

Weird Science Ltd. 1 Rowlandson Close, Leicester, Leicestershire. LE4 2SE
Tel. +44 (0)116 234 0682 Fax. +44 (0)116 235 0045
email. sales@weirdscience.co.uk or tech@weirdscience.co.uk

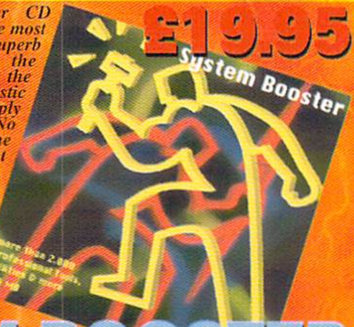
NEW WWW SITE NOW OPEN AT
www.weirdscience.co.uk



£34.99 **NEW**

Aminet Set 4, dated January 1997, consists of 4 gigabytes of software in 9,000 archives. Including the full versions of Directory Opus 5.11. With 95 megs Utilities, 79 megs Documents, 408 megs Text Software, 12 megs Disk/HD Tools, 7 megs Hardware related, 756 megs Pictures & Animations, 208 megs Graphics software, 394 megs Graphics & Sound Demos, 563 megs Games, 685 megs Music modules, 28 megs Music software, 131 megs Communications and more. Aminet Set 3, dated July 1996, consists of 4 gigabytes of software in 9,000 archives. Including the full versions of Imagine 4.0, XiPaint 3.2, Octamed 5.0.

AMINET SET 3 or 4



£19.95

The Amiga System Booster CD enables users to really make the most of their computers with a superb collection of tools to push the capabilities of the Amiga to the limits. Nearly all the fantastic utilities can be started by simply direct from the compact disc. No de-archiving required. The the contents include a vast collection of screen blankers, mouse tools & commodities, backup, file management, cache programs to optimise system performance, data recovery, CD-ROM utilities, virus killers and a whole host more. This CD-ROM prapvides for beginners and professionals.

SYSTEM BOOSTER



£49.95

MAGIC PUBLISHER

Magic Publisher comprises of four compact discs and on this unique CD-ROM set you will find all you need to create professional looking documents. There are more than 10,000 Fonts (Colour Fonts, Bitmap, IFF, Adobe Intellifonts, Truetype & DMF), more than 5,000 clipart. Many of these are exclusive to this compact disc. Full commercial versions of Final Writer 4 SE and Wordworth 4 TD are included. Both rated as great word processors on the Amiga. Tools for creating WWW pages along with backgrounds and special clip art for this purpose is also included. A 100 page booklet contains printouts of all the fonts and clipart.



£19.95

Aminet Set 1 or 2, consist of 4 gigabytes of software in 12,000 archives. The software is on four compact discs. With Utilities, Documents, Text Software, Disk/HD Tools, Hardware related, Pictures & Animations, Graphics software, Graphics & Sound Demos, Games, Music modules, Music software, Communications, Amiga Development software, Business software and more. All of the archives are easily accessible with a simple Index menu system with search.

NEW LOWER PRICE

AMINET SET 1 OR AMINET SET 2



£14.99

The Amiga Developers CD from Amiga Technologies comes complete with the all the developers tools and docs. provided to the official developers. Included are the complete CD32 developers tools with Build CD and ISO CD, Envoy 2.0 package, Enforcer, Workbench 2.0, 3.0, 3.1 tools and documents with the updated native developers kit, SANA II package and the installer package. Also included is a vast amount of info. A must for Amiga enthusiasts.

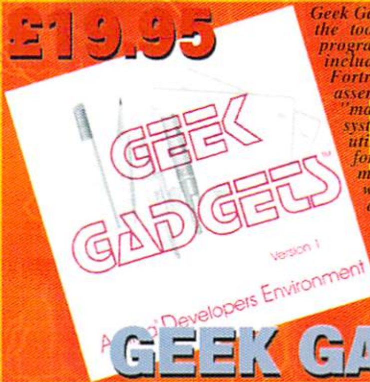
AMIGA DEVELOPERS CD



£29.95

MODS ANTHOLOGY

A collection 18,000 music modules arranged of four compact discs all sorted by composer, groups and type. All stored ready to use from the compact discs. Provided with 11 megs of Module lists and 25 megs of module players for many different computer platforms. This 7 years titanic work provides over a 1,000 hours of music enjoyment along with information on may of the composers whose work is featured.



£19.95 **NEW**

Geek Gadgets contains virtually all of the tools you need to get started programming on the Amiga, including advanced C, C++, Fortran and ADA compilers, assembler, linker, EMACS editor, "make", source code control systems (rcs & cvs), text and file utilities, GNU debugger, text formatters (groff & TeX), and much more. Everything comes with complete source code and all binaries have been compiled from the supplied sources. All tools on the Geek Gadgets CD can be run directly from the CD-ROM, without the need to install any files on to your Hard Drive.

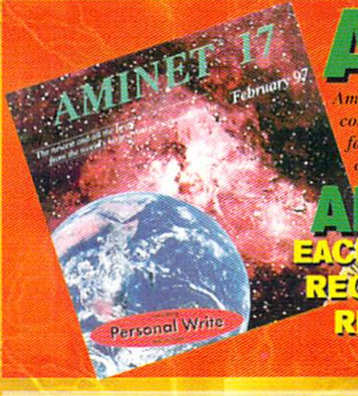
GEEK GADGETS



£49.95

The Amiga Repait Kit CD comes complete with the all with all the tools required to backup and rescue your precious data on hard drives. Disk Salve 4 will rescue and restore most damaged, corrupt and even deleted files from floppies, hard disks etc. During the process it will attempt to fix all problems caused by software failures or physical damage. RDB-Salve 1.1 is a superb program that will allow you to restore your valuable data even if the Rigid Disk Block has been destroyed or over written. Recovery can recover files from normal or corrupted disks. Essential Amiga Tools.

AMIGA REPAIR KIT



AMINET CDs £14.99

Aminet, the worlds largest Amiga archive, provides compact discs of the sites latest software uploads. Each volume contains about 1.1 gigs of archives with a superb menu system for un-archiving the files and a simple search facility to help you find exactly the file required. The search facility will even list the compact disc that the file is on. Aminet 18 is available in April and Aminet CDs 13, 14, 15, 16 are still available at £14.99.

AMINET CD SUBSCRIPTIONS

EACH AMINET CD FOR ONLY £ 9.99 UPON RELEASE BY JUST REGISTERING FOR A SUBSCRIPTION. AS EACH NEW CD IS RELEASED WE WILL CHARGE YOU AND DISPATCH YOUR NEW AMINET CD ON THE DAY OF UK RELEASE.



Meeting Pearls 4 (Software Collection) £ 8.95



Workbench Add-on CD (Utilities) £ 24.95



Giga Graphics Four CD-ROMs Image Collection £ 19.95



Xi-Paint v. 4.0 24 Bit Image Manipulation £ 49.95

International Distributor:

GTI
Grenville Trading International GmbH
Carl-Zeiss-Str. 9
79761 Waldshut-Tiengen. Germany
Tel. +49 7741 83040
Fax +49 7741 830438
Email: amiga@gtigermany.com

SCHATZTRUHE



£11.99

The Euro CD contains a vast variety of programs and data for the Amiga in the Aminet mould. However this CD differentiates itself by have the contents ready to run without de-archiving. The contents include Animations 36 megs, Commercial 21 megs, Demo's 65 megs, Disk tools 12 megs, Fonts 12 megs, Games 57 megs, Misc. 6 megs, Modules 110 megs, Music 21 megs, Objects 12 megs, Pictures 118 megs, Presentations 23 megs, Printer 1 meg, Programs 23 megs, Samples 4 megs, System 10 megs, Text files 26 megs, Utilities 16 megs and Vidules 3 megs. Full English docs. and menus.

EURO CD VOL. 1

SEE US AT THE WORLD OF AMIGA SHOW IN MAY

NETWORK PC

Provides a filesystem for accessing your PC drives from the Amiga. Our system will provide any WB program with access to any of your PC drives, including CD, Zip, Jazz and fixed hard drives. The PC acts as slave machine and can therefore not access the Amiga, however our kit contains all you need to access a PC from an Amiga. Simple Installation on both machines. The system is WB 2.04+ and Win95 compatible and the PC can perform other tasks simultaneously.

Access all of the PC drives.
Read & Write to & from the PC.
Load files directly from the PC.
Up to 45k/sec for Amiga > PC.
Up to 29k/sec for PC > Amiga.

Join a PC to your Amiga via the parallel port £19.95

Weird Science

FREE WITH ALL ORDERS OVER £ 25.00

The Global Amiga Experience

GLOBAL AMIGA EXPERIENCE

(OVER 200 DEMONSTRATIONS OF FULL COMMERCIAL PROGRAMS AND 7 FULL VERSIONS)

PLEASE ASK FOR THE FREE CD OR IT WILL NOT BE SHIPPED

INTERNET ACCESS THE EASY WAY

Weird Science is the Official UK Registration Site for Miami

In-To-the-Net CD provides a pleasant introduction and connection to the internet. Most of the difficult setting up is done automatically for you with the connection program provided. All that is required is the answers to a few simple questions. In addition the CD contains all the tools required for both the beginner and expert, full instructions on getting connected and many very helpful documents on the Internet and WWW. The tools include AmiTCP, Mail, FTP, WWW and many more. In addition there is a section on WWW page creation with clip art and creation tools. Easy Hard Drive installation possible but not required.

MIAMI REGISTRATION £29.95

IN-TO-THE-NET £14.99

INCLUDES OUT-OF-THE-NET

FULL VERSION

IBROWSE

iBrowse 1.1 now including support for FRAMES and many more HTML 3 tags. iBrowse is surely unbeatable and with a fantastic price from Weird Science. View the Web the way it was meant to be.

£24.95

PCX (PC EMULATOR) £49.95

NEW

Supports extensive hardware level emulation of the Intel Pentium Processor. FPU supported if the Amiga has an FPU. Written by the leaders in x86 emulation technology, responsible for the world's first Intel Pentium emulation. Compatible with MS-DOS through to version 7.0, Windows 3.1/3.11, protected mode as used by Doom and Dark Forces etc. Memory Manger compatible (EMM386) and compatible with PC Task hard files. The quick start function feature no BIOS required, auto configuring, on disk Amiga Guide documentation. Just requires MSDOS and Windows software to run.

SECAL Programming Language £39.95

NEW

The Secal programming language for the Amiga combines the advantages of both assembly and other high level languages. A unique feature of the Secal language is the way in which it integrates the elements of processor-level programming and high level statements. All this, together with the clean syntax make it possible to write compact and fast code - easier than in assembler. All of the important parts of the development procedure (editing, compiling-linking, debugging etc.) can be done in one single environment. Additionally Secal command line work and batch scripts.

THE LEARNING CURVE £19.95

A MAGICAL JOURNEY THROUGH EXCITING DIVERSE SUBJECTS

RATED AT 93% by CU AMIGA

The Learning Curve CD presents a fantastic and magical journey through exciting subjects brought together for the first time on an Amiga CD. Containing over 32,000 files this title will delight and interest both young and old with the vast diversity and quantity of Amiga Educational and Informational programs featured. All of the programs can be run directly from the compact disc with no unarchiving on any Amiga. (Workbench 2.04+.) Encyclopedias have been scarce for the Amiga and educational compact discs have been virtually non-existent, well now you have a unique CD providing productive entertainment for all ages. *Just a few of the categories.*

Aircraft	Educational	Religion
Art	Fairy Tales	Science
Computer	Mathematics	Astronomy
Desktop Utils	Spelling	Biology
Electronics	Languages	Books
Engineering	Literature	Chemistry
Geography	Drama	Ecology
Health	Music	Geology
History	Mythology	
Hobbies	Philosophy	

ASSASSINS CD VOL. 3 £19.95

NEW

The tradition continues with the release of the latest Assassins Ultimate Games CD Vol. 3. Over 500 new games and an all new and enhanced menu system for the selection of the great games contained on the compact disc. All of the games are ready to run directly from the menu system. This menu system has received accolades from amongst the Amiga Press on the previous two compact discs, both of which have received Amiga Format Gold awards. The menu provides access to all of the games, brief instructions, requirements, access to instructions & also the game itself. All of the games are new and original and have not appeared on either of the previous two compact discs. All games playable direct from the CD.

SOUNDSTUDIO £9.99

NEW LOWER PRICE

SoundStudio has arrived. With fabulous new features including full mixing facilities, save modules as samples, notation editor (with printing), 64 channels, new midi commands, more Toccata support, no sample size limits, fastmem facility and more. SoundStudio has lifted Amiga music creation to new heights. A must for all musicians.

SOUNDS TERRIFIC 2 £19.95

The music and sounds files can be auditioned from an easy to use interface for both a PC & Amiga. Included are 4,400+ modules, 400 extra large modules (over 300k each.) 795 Screamtracker modules, 1,000+ categorised midi files, 4240 IFF samples, 620 categorised WAV samples, 1,000+ Walkabout Instrument samples in WAV & IFF formats. 100's of utilities for Amiga and as a bonus the complete MidiCraft collection of Midi files. Now includes Octamed 5 CD FREE.

AGA TOOLKIT '97 £9.99

NEW

From Weird Science comes a superb Workbench 3.0+ Utilities CD with the very best utilities presented ready to run directly from the CD. No installation necessary. The compact disc is presented with both 'New Icons' and 'Magic Workbench' icons and an assign sequence that enables either at the choice of the user also sets it up ready for the utilities to run directly. The contents have been indexed with a description of all the fully categorised utilities available. Any of the utilities can be launched from the guide directly. The categories include Graphics, Disk Utils., Operating System, Emulation, Workbench, Music, Business, Communication, Performance, Text, Programming and more.

NETWORK CD 2 £14.99

Sernet Cables £19.99

The very best in CD32 and Amiga Networking has just got so much better. This CD is an absolute must have for all Network CD owners. The concept and operation has been improved in every possible way. The CD32 boots in about 45 seconds, with more memory available and fake fast ram to improve speed. One button press on the Amiga can set-up any program to run on both machines, including the entire Sernet set-up at the speed of your choice on both machines. No more difficult set-up routines. Sernet now runs at various speeds and is now the fastest ever. A keyboard and mouse can be emulated on the CD32. Twin Express can now be controlled from DOpus. Serlink allows easy downloading of data. Plus so much more. The best way to join a CD32 to an Amiga

WOMEN OF THE WEB £19.95

NEW LOWER PRICE

Women of the Web is an exciting new multimedia experience bringing all the latest Internet technology to the home. This title is compiled in HTML format, using pictures, text files, animations and sound samples. With over 450 megs of information on over 250 of the world's most beautiful and famous women. The easy point and click interface makes the whole CD-ROM accessible to both beginners and experts alike. With full colour images and video this compact disc is sure to please.

KARA COLLECTION £29.95

NEW

Includes all the packages previously published by Kara Computer Graphics for the Amiga, plus many more, in an exclusive and professional edition reorganised and enhanced by Cloanto. This CD-ROM contains 80 ColorFonts, 5 AnimFonts, hundreds of alternate colour palettes, Starfields, Plaquegrounds, and software for special effects in pictures, animations, titling and presentations. All items for solo or combined use. The Kara Collection also includes two software packages developed by Cloanto to manage bitmapped fonts: ColorType for colour fonts and the Personal Fonts Maker for black and white fonts. Both have been acclaimed as the best in their respective fields. To make AnimFonts really easy and enjoyable to use. A fabulous collection of Anim Fonts.

PERSONAL PAINT 7 £29.95

NEW

UPGRADE FROM 6.4 £19.95

After more than a year of hard work, we are proud to announce the release of Personal Paint 7. This version has more than 100 new features, including:

- *New and improved file formats, including Photo CD, GIF, BMP, JPEG, 24-bit DataTypes and PBM*
- *Professional Internet features like GIF animations.*
- *Enhanced user interface.*
- *180 ARexx commands, with scripts directly accessible from the toolbar*
- *New "plug-in" library system.*
- *Automatically create directory thumbnails.*

And much, much more

LIGHT ROM GOLD £14.99

NEW LOWER PRICE

The very best from Light Rom 1, 2 and 3 with over 6,000 Lightwave objects and scene files. Light Rom Gold was created for those who did not purchase Light Rom 3. The material on Light Rom Gold is compatible with all versions of Lightwave on all platforms. This material is presented using the content directory method for all users of Lightwave 4.0 and higher. All of the Lightwave objects and scene files are represented with thumbnail renderings for easy previewing.

PERSONAL SUITE CD £14.99

NEW

This CD-ROM includes Personal Paint 6.4 and Personal Write 4.1 from Cloanto, SBase 4 Personal (from Oxxi), Personal Fonts Maker 1 & 2 (Cloanto), 27 professional colour fonts, Cloanto's DirDiff (file synchronisation and replication software) and PNG Toolkit, plus ½ Gbyte of pictures, animations, stereograms, stereogram animations, Amiga fonts, printer downloadable fonts and texts. The CD-ROM contains no public domain or shareware software. The commercial titles include full manuals in AmigaGuide format (English and German, with some titles also in French and Italian).

LIGHT ROM 4 £19.95

...ght Rom ... o u r ...tures new ...alty free ...a t e r i a l ...ated with ...ghtwave 4.0 & ... versions.

LIGHT-ROM 4, a 2 CD-ROM set for the Amiga, Mac, Windows / NT features all new Lightwave objects and scene files. In addition there is a bonus CD-ROM of 3,000 Jpeg Textures, see below. LIGHT-ROM 4 also includes a collection scene files by Alan Chan. This set contains wholly new material and is an absolutely superb resource for Lightwave.

EPIC ENCYCLOPEDIA £29.95

The Epic Interactive Encyclopedia 1997 Edition now includes over 16,000 articles, 4,000 images, 200 sound clips, 200 film clips, 3 search engines, over 1,000,000 words, national anthems, the ability to create your own articles, guided tour and much more. The latest version contains at least four times as much information as it's predecessor.

UPGRADE FOR £11.99

ALL ONLY £ 9.99

1,078 Weird Textures
3,000 Jpeg Textures
Dem Rom
Magic Workbench Enhancer
NFA Utilities Experience
NFA AGA Experience 2
Scene Storm
Zoom 2
Oh Yes! More Worms
Octamed 6
Clip Art CD
3DCD-1 Objects
3DCD-2 Images
Retro Gold

ALL ONLY £ 14.99

Card Games CD
17 Bit LSD CD 3
17 Bit 5th Dimension
Amos PD CD
UPD Gold
Imagine PD CD
Multimedia Backdrops
Sci Fi Sensations 2
Assassins CD Volume 2

TELEPHONE ORDER HOTLINE

+44 (0)116 234 0682

UK POSTAGE IS £1.00 FOR THE FIRST ITEM AND 50p EACH EXTRA ITEM, OVERSEAS IS DOUBLE.

WE WILL PRICE MATCH ANY ADVERT IN THIS MAGAZINE



From

to

After a brief glance through the article it's pretty obvious that 3D is my stable diet when it comes to commercial art, although the odd foray into 2D does make an occasional appearance.

Needless to say, I always do my very best to avoid freehand elements wherever possible, due to a rather disturbing lack of talent when it comes to pen and paper. I'm mentioning this to illustrate that a lack of skill with traditional tools isn't necessarily a stumbling block when it comes to computer generated art and animation.

Thanks to the power, and sometimes the complexity, of computer software the real skill is in conceptualising, visualising and finally implementing the desired look and feel. When it comes to CGI understanding the technology, its limitations and potential can be far more important then being able a knock out a convincing stickman.



Obviously this won't inspire confidence for those not consumed with a passion for 3D. However, even in two dimensions there's still huge scope for what is known as derived art. In short, this means the importation, manipulation and composition of real-word and CGI elements to form an occasionally surreal mixture of photography freehand, ray traced and digitised imagery.

Combine a talent for derived art and add a touch of photography or videography and you have the basis for a new media business. As all these genres converge under the global banner of digital technology, the ability to combine multiple skills is becoming an increasingly valuable commodity.



OK, if it's so easy why isn't everybody doing it? After all, if you don't need any physical skill it must be a doddle right? Alas no, as with every swing there follows the inevitable roundabout.

Although the Amiga can rescue a would-be artist from the limitations of hand and eye, the mental demands remain the same and, in many cases, the creative pressure is even higher.

The reason being that every computer artist starts of with roughly the same basic skills – commonly referred to as the machine and its software. Because computer graphics rely on such a similar array of tools it's much easier to produce predictable results. Your job is to develop a style – which to many freehand artists comes naturally.

As computer art is primarily a mental discipline, you can survive with the hand/eye co-ordination of a house brick, but if you don't have the eye, the understanding and







Paul Austin guides would-be Amiga artists through the minefield of transforming a hobby into **hard cash**

Pixels Pounds



The images used on these pages are a collection of various Lightware and Imagine images - all commissions for a variety of computer titles. Amiga Computing being a prime example...

the inspiration, you're in trouble. (At this point it's worth stressing that I certainly don't consider myself an artist in the classical sense. what I, and many others, do is commercial art, there's a very big difference).

I work solely on commissions basis and therefore don't have to wait for the hit and miss of inspiration. All that's required is to turn a concept into reality - a process which can be pretty painful in itself. While we're on the subject of inspiration, it's perhaps worth stressing that artistic pretensions rarely have a place in commercial art. If, while negotiating a job, you come across as the sort of person who would never compromise their artistic principles there's a strong chance your career will be short lived.

However, that doesn't mean you should do ➤



A Lightwave production complete, with bones, which finally appeared within a PC driven CD-Rom attraction at one of Granada's theme park attractions



what you're told without question, often a client is looking for input on a project. In many cases the people commissioning the work will be blissfully unaware of the potential and, perhaps more importantly, the limitations of your particular field. They'll often be happy to explore new ideas – but at the end of the day it's their opinion that matters.



Often relatively simple things can really impress a client while the real clever stuff may be overlooked with annoying indifference. The response will may be' "Oh that , yes it's OK I suppose..." when you were expecting a wow! The bottom line is to get involved in the design stage as soon as possible. As a result you can guide the client in the best direction for both parties.

Another point worth mentioning is not to let the software take over the show. All too often you see beautiful images ruined by the latest addition to the software. No matter whether it's lens flare, motion blur, depth of field or any one of the hundreds of image processing options available via programs such as ArtEffects or ImageFX, always keep your goal clearly defined.

A good example of over-kill at its best is a Christmas card image in this very article. Although this doesn't suffer from new-feature-itis, it does illustrate a very easy mistake to make. A slightly more spatial version was commissioned for use on the front cover of an ST magazine. When the final image appeared in all its texture mapped glory, I must admit I was fairly pleased - I'd even remembered to leave space for the cover disks, great!

However, when the cover words, flashes and masthead were added, the vast majority of its appeal was lost. Once all the other elements arrived it was simply too cluttered and the impact was lost.

This is a key point in almost all commercial art work – you're being paid to make an impact, not to impress your peers. Invariably you're selling something in one way or another and it's your job to make the client's product leap out from the rest. As a result, adding intricate detail and clever technicalities that only a tiny handful of enthusiasts will appreciate isn't always good business. At worst they'll confuse the image and at best, waste valuable time.

WORKING IN PRINT

As you've probably spotted, the vast majority of my work is in 3D, usually in the form of magazine cover images, illustration, animation - either on tape, CD or the Web. Although the animation work can be a lucrative business, still images are usually the most cost-effective, especially on a freelance part-time basis.

With a full-time job as well, it's often difficult to fly around the country baring hard drives packed with thousands of images or invest hours building and rendering complex animations. Thanks to the Internet, high density floppies and high compression file formats such as Jpeg, it's usually quite easy to transfer even the largest individual files.

For print work I rarely go below 1024 x 1024 and for a magazine cover image a pixel count of 2,000 in the vertical axis is a minimum. The reason being that most ray tracing programs such as Lightwave render at 72dpi. This is fine for video, but as most publishers output film at 300dpi or above, the image needs to be at least three times the normal scale to ensure pin-sharp output at the printers.

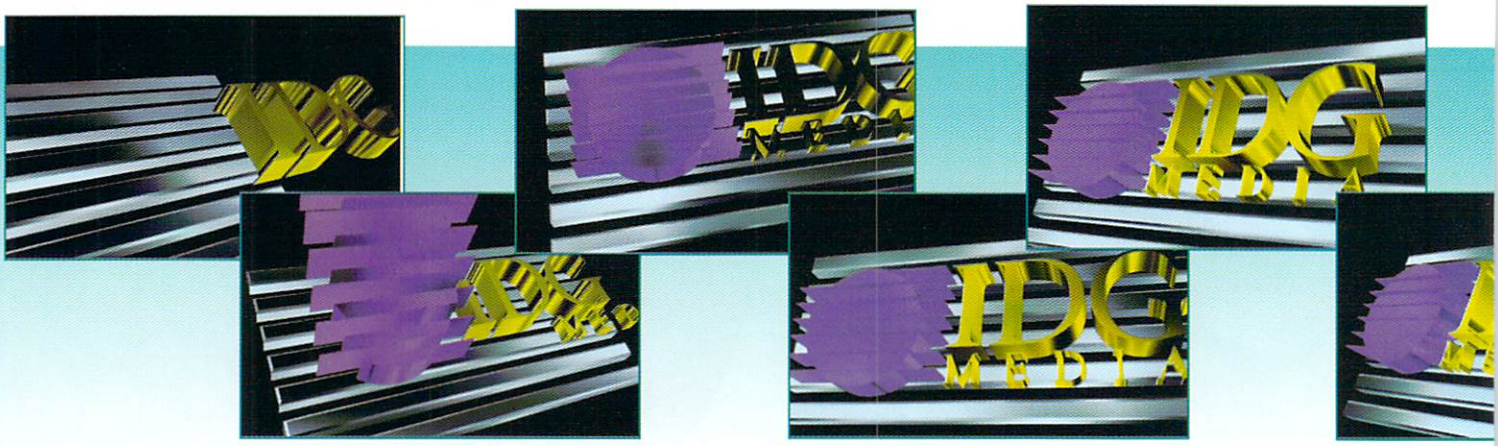
Needless to say jpeg is the ideal format for this kind of work, however there is a downside to jpeg that you should be aware of. Although it is often a life-saver, repeated saving using jpeg compression can introduce faults or artefacts into the image. Unlike IFF24, jpeg actually reduces the amount of information in the image in order to achieve it's compression. In reality this doesn't mean there's any perceivable damage on the occasional jpeg save.

However, the danger comes if you fall into the habit of using jpeg while working on an image. The more saves you do, the more likely artefacts will creep into the image. For storage and transport it's perfect, but don't get carried away with saving space – it can become a false economy.

ESSENTIAL HARDWARE

Obviously with the huge range of Amiga hardware and software available, listing the lot is out of the question. So I'll concentrate on the elements you'll need to do business, rather

Thanks to the fax, you're provided with the ability to both send and receive ideas and proofs of work in progress



YOUR FIRST BIG BREAK

For the newcomer it's always difficult to land that first all-important project. Well, the vital first step is to build a portfolio of your work. Probably the most realistic approach is to undertake one or two jobs for free or at break-even for a big name. (It's important that there is a clear understanding that the freebie is a one-off and that the subject of payment should remain strictly confidential.)

If you do adopt this approach it's important to get as high a profile job as possible and make sure you get a reference and, if possible, a credit on the finished job. The bigger the company name, the more impressive it will appear to potential employers.

Assuming you've landed that first contract, the next step is to set your stall out for future employers. It's vital once you're established that you stick to your guns when it comes to cost. A good businessman/woman will always try to barter the price down. And obviously it's occasionally worth leaving a small margin in your quote to accommodate a compromise. However, one of the biggest mistakes you can possibly make is to crumble under the pressure and agree to work at break-even on a regular basis.

Trying to get a fair price is almost impossible if you've have a reputation of being cheap. If a potential client won't pay a fair price, don't do the job – it's that simple. If you're good enough, you'll get what you deserve more often than not. Most individuals and companies are willing to pay a fair price for quality results, but that doesn't mean they'll like it...

Secondly, it's important when making a presentation to a potential client that your work is in a format that they can handle. It's useless walking into a business brandishing an Amiga floppy. Always present on either Mac or PC.

For still images opt for either Jpeg, Pict or Tiff formats. For animation, the best option is QuckTime as this will work equally well on both Macs and PCs. Again ShapeShifter can be vital at this stage.

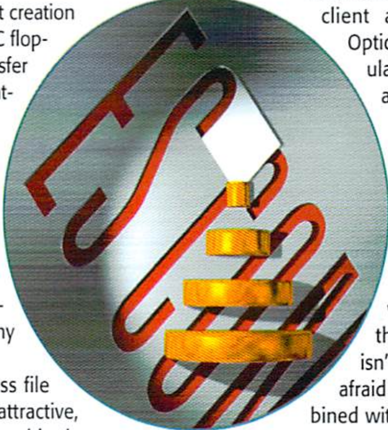
Obviously liaison with the client is vital to ensure you make a suitable first impression. As time goes by it's important to develop a working knowledge of both Macs and PCs, especially in relation to file transfer and favoured formats.

than those which will actually generate the end results.

Perhaps the most important of all has to be a fax modem and an Internet account. Thanks to the fax, you're provided with the ability to both send and receive ideas and proofs of work in progress. It also overcomes two of the major stumbling blocks when attempting to incorporate Amiga graphics into a business world dominated by the PC and Macintosh.

Firstly, the modem element can side-step the problem of transportation and hardware compatibility. All too often your latest creation will be just 50K too big to fit on a PC floppy. But thanks to the infinite transfer potential of a modem it wouldn't matter if the file was 5Mb too big.

The only limitation is of course the impact on your phone bill – assuming haven't convinced the client to dial into your system. Secondly, thanks to the format conversion options offered by the Amiga's huge arsenal of image processing packages, quite literally any file type can be delivered directly.



Obviously when it comes to mass file transfer, a modem becomes less attractive, however there are alternatives. Arguably the best all-round solution to the problem of format incompatibility and file transfer is the wonderful ShapeShifter Mac emulation package from *Christian Bauer.*

Thanks to this excellent emulation your Amiga can instantly transform itself into a Mac. Add an external hard drive and you have an instant solution to the transportation problem. Simply take the external drive to your client and copy your creation directly. Opticals such as the Zip drive are particularly good for long distance contracts as you can post the cartridge - obviously it's a good idea to check what they can handle beforehand...

Another must is a good printer. In a ideal world you'd have two. A laser printer for letters, flyers, invoices and other administration and a dedicated graphics printer with which to display your wares at their colourful best. Obviously this isn't an ideal or likely situation, so I'm afraid it's a question of priorities combined with cash-flow.

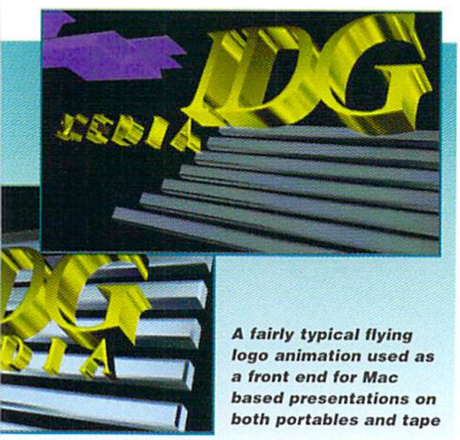
Finally, it's essential that you invest in some sort of 24-bit display device. Although Ham8 is great, it simply doesn't match-up to a true 24-bit display. The choice is yours, but it's worth ensuring that the board and accom- ➤

FIRST STEPS

Before starting, or even agreeing to a job, give yourself some time to think things through. It's all too easy to agree to a job and then dive straight in, only to discover halfway through that you've gone about it completely the wrong way. Once you've decided on an approach, sketch it out on a piece of paper and fax it through to the client.

If everyone agrees with your approach it's time to get down to the serious work of transforming your concept into a creation. If the job revolves around a real-world object that needs to be incorporated into the work, it's essential to get either the item itself or detailed photographs.

It's incredibly easy to trust to memory and model away. Believe me this is a big mistake... No matter how well you know the subject matter it's virtually impossible to draw or model an object without overlooking some vital detail. And I can guarantee the client will spot the error and quite rightly demand that its done right before they'll sign the cheque.



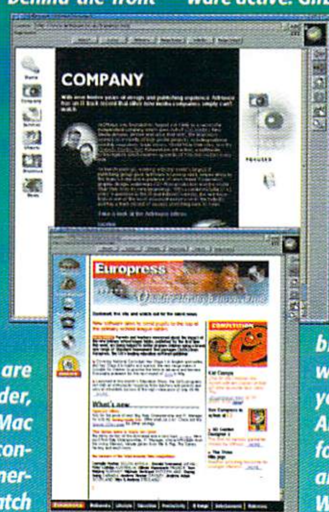
A fairly typical flying logo animation used as a front end for Mac based presentations on both portables and tape

WEB WORK

Although the Amiga is a long way behind the front runners when it comes to Web development, that doesn't mean you can't apply the Amiga based skill and application to Web related work.

In order to be effective in this area something like ShapeShifter or a form of PC emulation is essential. The best option is probably ShapeShifter Mac emulation courtesy of the impressive array of Freeware and Shareware applications available on the Mac.

The most important tools are Graphics converter and GifBuilder, both of which you can find on any Mac FTP or software archive. Graphics converter is also essential for more general use as it has the ability to batch process files from one format to another – although you'll need to register the Shareware version to make the batch processing side of the software active. GifBuilder, on the other hand, is ready to roll straight away. All you need to do is convert your IFFs to Gifs using Graphics Converter and then load them into GifBuilder to produce an animated Gif.



A combination of Amiga and Mac animation and imagery rendered down to depths and resolutions that work well on the Web

As for building and testing Web pages it's well worth using Netscape and Internet Explorer on the Mac to test your finished scripts as the vast majority of users will be viewing your creations using one of these browsers. Remember commercial work is all about PCs and Macs, so if you only test your pages using an Amiga based browser you're asking for trouble. More importantly, both IE and Netscape can handle the latest Web related add-ons such as frames, tables, Java, Java script, Shockwave and whatever else. If the client wants these features in their site it's important you can deliver the goods.

panying paint package you pick has both an alpha channel and some form of virtual memory.

The alpha channel is an absolute must when it comes to blending elements and touching up finished material. As for virtual memory, it becomes invaluable on larger images. If you are only ever likely to work in video resolutions, or smaller, it isn't a problem. However, if you land a commission to produce a cover image for a magazine, or in fact anything that demands very high resolution, it's a must.

As you are no doubt aware, most 24-bit boards have a range of pre-set resolutions. If you can't scroll or select an area larger than the maximum touching-up, a final can be a nightmare and sometimes impossible.

MOVING IMAGES

When it comes to animation for either tape or computer playback, you'll find yourself faced with a whole new collection of problems and pitfalls, not least of which is the ability to transfer the end results.

When it comes to tape based productions the holy grail has to be a Draco – this is the ideal solution, allowing you to transfer broadcast quality digital video directed to the recording system of the clients choice in either a composite or S-VHS.

However, if you don't have direct access to single-frame recording equipment it's worth enquiring whether the client has access to such facilities. If so, you could take your work to them and download your files courtesy of an external drive.

Having mentioned the videographic uses of animation, it's worth mentioning that there is another market that could prove profitable to the animator. Thanks to the explosion of CD-Rom there is a huge market for intros and other graphic interludes. Examples of this being the IDG and Granada logos which were produced for a corporate presentation and interactive CD-Rom attraction within a theme park.

In addition there's a growing market for on-line education. Due to the expense and effort involved in producing and updating manuals and other traditional learning materials, many companies are turning to graphics. For example, a number of companies are now using computer animation to illustrate their products or to help explain how to install hardware or software.

Thanks to a five second animation, the need for a whole chapter of expensive text is removed. All the user has to do is watch the anim spool from hard disk or floppy and the mystery is removed.

Chips always go in the right way, nuts and bolts slide into the appropriate place and expensive tech support is slashed in a matter of seconds. This may not be glamorous but it pays well and usually leads to regular work.



Thanks to the explosion of CD-Rom there is a huge market for intros and other graphic interludes.

CLARITY IS THE BEST POLICY

It's vital that both you and the client are completely clear as to what's required to make the project happen. Once the ground rules are established make sure it all goes down on paper including deadlines, delivery dates of materials – to both parties – and last, but not least, the agreed payment.

It's also worth making some enquires about any accounting restrictions. Some larger companies require VAT registration from suppliers and may also take anywhere between 30, 72 or 90 days to pay your invoice. It sometimes worth getting a name in the accounts department, as the person commissioning the work may not have a clear idea of company policy regarding the payment of invoices.

Equally important is to get a clear idea of how they want the end results to look, ensuing that any extra elements are included in the brief. Where will the text appear, are there any flashes to be added and so on.

Right through the project keep in close contact with the client with regular updates on your progress and their requirements. But most important of all, never stray from the brief. It's very easy to get carried away and do what you think is best – unfortunately the client may not agree. Remember, the customer is always right

Another important point is to work with the person at their end who will be dealing with the work when it arrives. Make sure you can deliver the materials in a form that he or she is happy with. If the art guy or gal at the sharp end can simply flow your creation into a template you'll score some valuable brownie points. Keep the workers happy and the management will be a lot more likely to keep commissioning.

Once the project is underway, by far the most important element is time. The client will be working to a deadline and they'll be expecting you to deliver the goods as promised.

There's no point in griping about hardware or software failures. If you miss a deadline, you're a liability and nothing more. It won't matter how good the end results are, if they're not in on time you'll be lucky to get paid and even luckier to land another commission.

GETTING PAID

Actually getting paid is often one of the trickiest things about freelancing. It's not that the client is unlikely to pay, it's simply that they'd prefer to keep their cash as long as possible. This is why it's so important to get written confirmation of exactly when you can expect the cheque.

There are a few alternatives to the traditional invoicing approach. For example, with new clients you can ask for COD (cash on delivery). Another option is to insist on at least partial payment in advance. This can often be an essential on larger videographic productions which may require a substantial investment during production.

Once you're familiar with the company in question it's sometimes wise to drop the COD or partial payment options and join the unwashed masses in the 30 days-to-pay department. However if you do take this option, keep a close eye on the calendar and indeed the bank manager. An obvious stumbling block for artistic work is exactly how much should you charge for the work itself. The first thing is to calculate the actual cost of your equipment, software, and general operating cost. The first two usually depreciate over a three year period, meaning they'll have to be replaced entirely in year three.

Once you've calculated your operating cost, the next job is your time. Work out a minimum hourly rate. Next, add any additional hardware or expenses you're likely to need or incur during the production. Look at the opposition and try and establish how much it would cost the company to get the job done elsewhere.

Finally, try to find out what the overall budget is for the project and how the client plans to recoup their investment. If the project is commercial it's sometimes worth trading up-front partial payment against a profit share in the product itself – for smaller operations this is often an attractive proposition.



GASTEINER

0181 345 6000

Facsimile 0181 345 6868

18-22 Sterling Way, North Circular Road, Edmonton, London N18 2YZ

LONDON'S AMIGA SALES & REPAIR CENTRE

RAM CARDS

WE CARRY RAM CARDS FOR ALL AMIGA COMPUTERS AT VERY LOW PRICES

AMIGA A500	
1/2MB	£15.99
A500+	
1MB	£19.99
AMIGA A600	
1MB	£19.99
1MB WITH CLOCK	£34.99
AMIGA A1200 RAM CARDS COME WITH CLOCK & FPU SOCKET	
0MB	£29.99
1MB	£39.99
2MB	£49.99
4MB	£54.99
8MB	£79.99

BLIZZARD 1230 IV

0MB	£149
4MB	£169
8MB	£189
16MB	£209
32MB	£259

FPU

33MHz plcc	£10
50MHz pga	£50
crystals	£5.00

MEMORY SIMMS

At Gasteiner we have simms & memory for all ram cards & accelerators made for Amiga computers A500, A600, A3000, A1500, A2000 A4000

30PIN SIMMS1MB
4MB
72PIN SIMMS
2MB
4MB
8MB
16MB
32MB

Call for UK's best prices

SCANNERS

	EX VAT	INC VAT
GT 5000 EPSON	£350.00	£411.25
GT 8500 EPSON	£700.00	£822.50
GT 9000 EPSON	£600.00	£705.00

ARTEC 600DPI FLATBED SCANNER
with amiga software
£269.00 BEST BUY

HARD DRIVES

WE SELL HARD DRIVE FOR ALL AMIGA COMPUTERS. WE HAVE SCSI OR IDE HARD DRIVE TO FIT AMIGA A500, A600, A1500, A2000, A3000 & A4000 WHATEVER CONTROLLER YOU MAY HAVE? IF IN ANY DOUBT PHONE OUR TECHNICAL PEOPLE

SCSI

FASTEST DRIVES

	EX VAT	INC VAT
290MB INT SCSI	£50.00	£58.75
730MB INT SCSI	£99.00	£116.33
1.2GIG INT SCSI	£159.00	£186.83
2GIG INT SCSI	£285.00	£334.88
4GIG INT SCSI	£600.00	£705.00
730MB EXT SCSI	£130.00	£152.75
1.2GIG EXT SCSI	£219.00	£257.33
2GIG EXT SCSI	£300.00	£352.50
4GIG EXT SCSI	£650.00	£763.75
8GIG EXT SCSI	£999.00	£1173.83

IDE 3.5"

BEST BUYS

420MB	£99
850MB	£129
1.3GIG	£149
1.7GIG	£169
2.5GIG	£199
3.2GIG	£249

IDE 2.5"

SUPER SMALL HARD DRIVES

170MB	£69
340MB	£89
520MB/540MB	£129
810MB	£159
1GIG	£199
1.3GIG	£259
2GIG	£369

FAX & MODEM

NEW 33.6 WITH CABLES FOR ALL AMIGA **£79.00**

CD ROM & WRITERS

CD ROM	EX VAT	INC VAT
4 SPEED	£100.00	£117.50
2SPEED	£79.00	£92.82
8 SPEED	£200.00	£235.00
CD WRITERS		
PINNACLE	£549.00	£645.08
RICOH 2 SPEED	£329.00	£386.57
YAMAHA 4 SPEED	£629.00	£699.00



PRINTERS

EPSON 200	£119
EPSON 500	£249
EPSON PRO	£379
HP640	£249
HP870	£379

MONITORS

	INC VAT
MICROVITEC 14" (NEW)	£250
MICROVITEC 15"	£359
MICROVITEC 17"	£469
SHOP SOILED PHILIPS 8833	£119
SAMSUNG 15"	£259
SAMSUNG 21" (NEW)	£1059
SONY 15"	£329.00
SONY 17"	£586.32
GASTEINER 15"	£258.50
GASTEINER 17"	£419

BITS & BOBS

ZIP DRIVES	£149.00
JAZZ DRIVES	£420.00
SQUIRREL	£50.00
SURF	£89.00
SMD MPEG	£199.00
SCSI OKTAGON	£89.00
MULIFACE III	£74.99
ALFAQUATRO	£55.00
IDE CONTROLLER FOR A500, A1500, A2000, A4000	£79.00

OFFER OF MONTH

A500/A600/A1200 Power Supply

Only £14.95

ZIP, JAZZ & SYQUEST CARTS

ZIP CARTS	£15
EZ135 CARTS	£15
EZ230 CARTS	£23
JAZZ CARTS	£79
SQ 200 CARTS	£59

DELIVERY CHARGES

SMALL CONSUMABLES AND SOFTWARE ITEMS UNDER THE VALUE OF £59 PLEASE ADD £3.50 P&P. OTHER ITEMS EXCEPT LASERS, NEXT DAY COURIER SERVICE £10 PER BOX. OFFSHORE AND HIGHLANDS, PLEASE CALL FOR A QUOTATION. IN ADDITION WE OFFER THE FOLLOWING EXPRESS SERVICES: SATURDAY DELIVERY NORMAL RATE PLUS £15 PER BOX, MORNING, NEXT DAY NORMAL RATE PLUS £10 PER BOX.

E&OE. PRICES ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

ALL TRADEMARKS ACKNOWLEDGED.

TRADERS TERMS & CONDITIONS AVAILABLE UPON REQUEST.

Epson Stylus 600 & Canon

Looking for the best printer on the market. **Larry Hickmott** puts two of the finest models available to the test and comes up with some interesting results



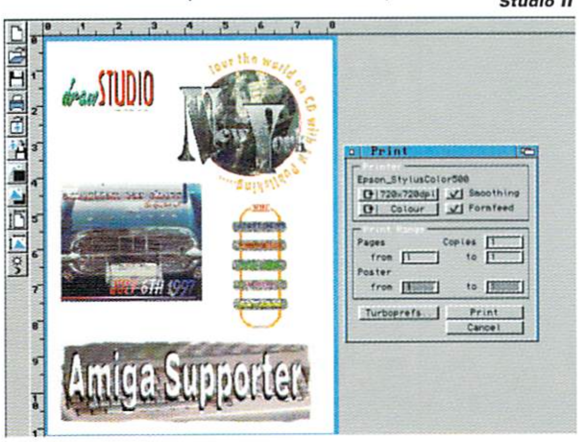
Epson Colour Stylus 600
Without a doubt, the Epson Colour Stylus 600 is the best desktop printer when it comes to value, quality and performance. Just make sure you a purchase a print enhancement package to complement these qualities, and plenty of spare ink

Over the last few years desktop printers have steadily improved to the point where photographic quality output is possible on some of the top models. Two of the best come from Epson and Canon and recently I had the pleasure of using both in anger. The two printers in question being the Epson Stylus Colour 600 and the Canon BJC-620.

Both printers look quite similar. Paper is loaded from the top and follows a fairly straight paper path to the front of the printer. The important differences between the Epson and the Canon are twofold. On the Canon 620, the inks are held in separate containers, which means you only have to replace the ink that runs out. If you do a lot of colour printing, this is very important and although Epson dispute the fact, I expect that consumables on the Canon 620 will work out cheaper in the long run.

The second major difference can be found in the printers' control panels. The Canon 620 still has a full set of buttons along the top of the printer while the Epson 600 has only a couple of buttons, making it simpler to operate. In use, I did end up preferring the Epson approach which is to leave it to the software to control most of the printer's functions and only when you need to clean the print heads or load/eject paper, do you need to touch the printer.

There is a third difference, although it will only affect those with a Macintosh or Macintosh hardware in their Amiga. The Epson 600 also has an Appletalk port on top of the normal parallel one while the Canon BJC 620 only has the parallel port for Amiga and PC use.



The best quality from both the Canon 620 and the Epson 600 came when using GraphicsPublisher, part of the TurboPrint 5 package. Similar results can also be achieved using the picture printing application that comes with Studio II

Amiga language

We now come to the really important part, the bit where we look at how these printers talk to the Amiga. Both attach via normal Centronics parallel cables – the sort generally used for attaching printers to PCs. Next we need a printer driver and this is where it gets a mite complicated. First of all, forget about your standard Amiga printer drivers because they're useless as far as modern printers go.

If you buy the Canon model, there are free specialised printer drivers (01429 521 009) available that will drive the Canon 620. It is also available on Aminet. This free driver won't give you perfect results first time if the tests I did are anything to go by. Compare this to the near perfect results I got first time using CanonDisk's commercial cousin, Studio II Professional (01525 718 181) or TurboPrint 5 (01908 370 230) and you understand that nothing is really free in this world.

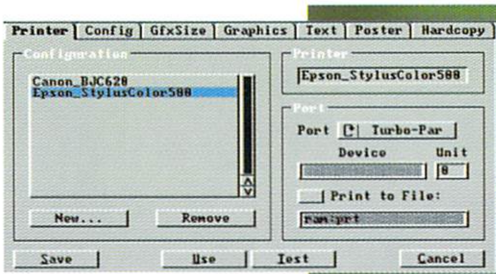
The good news is that you can get the registered version of CanonDisk for only £20 from HiSoft, and that I expect will give similar results to those produced by Studio II Professional. As for ease of use, I still prefer TurboPrint 5 which customers tell me is the easiest of the print enhancement packages to use.

With the Epson Stylus 600, there is no free printer driver available. You do however have three commercially available choices; EnPrint (01642 713 185), TurboPrint 5 and Studio II. Of these, I haven't seen a recent version of EnPrint (which is the cheapest option) and so can't say how well it works with the Epson 600. I have however been sent TurboPrint 5 and Studio II, and both produce excellent results. Certainly on par with the output from the PC, although only when using the picture printing applications in either TurboPrint or Studio.

This quality is achieved despite both packages not having a specific driver for the Epson 600 at the time of writing. In testing, I used the Epson 500 driver and it worked well even though it does not support the 1440 dpi resolution that the Epson 600 is capable of. This will no doubt come in time.

The results

At the end of the day, the thing that matters to most is the quality that each printer can

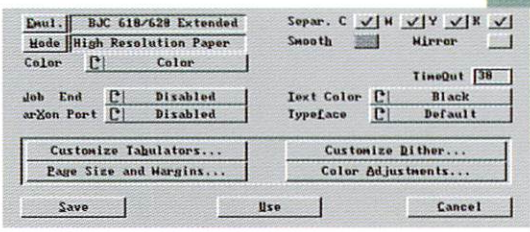


Although TurboPrint 5 had drivers for the Canon BJC-620, I had to use the Stylus 500 driver with the Epson 600. I expect both Studio and TurboPrint to have Stylus 600 drivers soon though

BJC-620



Canon BJC-620
The Canon BJC-620 is an excellent printer in its own right, but when compared to the Epson Stylus 600, falls a little short in a number of key areas such as quality and speed



You can get a free printer driver for the Canon 620 but for the best results, you will have to register this free driver to get an upgrade which costs £20.

produce. With both printers being used at 720 dpi, it was interesting to see that with photographic output, the Epson 600 is better in terms of the fine detail it can reproduce.

This, I was told at a recent press briefing at Epson, is down to the control the Epson 600 and the Piezo technology it uses, has over dot size and shape. Put simply, because the Epson 600 uses electric current to create the dot of ink via piezo crystals, it is able to push and pull the ink to manipulate the process so it not only creates a perfectly shaped dot with very little misting (ink spray around the dot), but the Epson R & D folk have also brought down the size of the dot they can place on the paper to as low as 55 micron, which we are told is not far from being so small as being "invisible" to the human eye (which is 40 micron by the way).

The upshot is that the Epson 600's photographic output is better that the Canon 620's. When the Stylus 600 drivers become available to produce 1440 dpi, (using Epson's Super Micro dot) I expect the Epson 600's quality from an Amiga to be even finer. That isn't to say that the output from the Canon 620 isn't good, because it is. It just fails to match that of the Epson model.

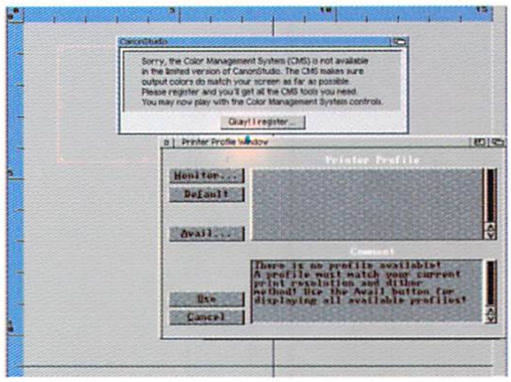
Speed differences

However quality isn't the only criteria used to judge a printer. Speed is also important and here too, the Epson 600 wins the race – or at least the one race I set them which was to print a full A4 image from an '060 based Amiga using TurboPrint 5's Graphic Publisher. The Epson was very much quicker and although the Canon was no slouch, the Epson still managed to do it in almost half the time. When you consider I used the same Amiga, the same program and page and even the same dither and resolution settings, you can see that the test was as fair as we could make it.

As you might have guessed, the Epson 600 is doing very well so far in this review and it gets better because the Epson 600 is actually around £30 cheaper than the Canon BJC-620 – going from the prices I have to hand. A call to Canon tells me the price has just been slashed but none of the retailers could let me know what this would mean to high street prices.

What you also need to remember is that if you take the £30 you save on the Epson 600 and use it to buy a printing enhancement package, the total price is slightly higher than that of the Canon model although, as I have said, the free printer driver that you can get for the Canon 620 isn't the be all and end all. You will probably find buying the registered version a big help in improving the quality of the output. The upshot of all that is, in the end, the price ends up roughly the same.

So which is the best? Everyone will have different priorities in judging a printer, but with the Epson 600 ahead in so many areas, it's hard to see anyone choosing the Canon 620 above it, unless having separate ink containers is terribly important. That's not to say the Canon 620 is bad, it isn't. I have been using it for two weeks doing all the proofs for my own magazine, and have been very pleased with the reliability and output quality. I certainly doubt anyone will be disappointed with the Canon, it's just that it isn't as good as the Epson 600 in many areas and that's why, if I was asked to recommend one, it would be the Epson 600. In fact, I've already ordered the Epson Stylus 1520, an A2 model based on the same technology used in the Epson 600. At this point in time, you could say the Epson Stylus can't be beat – and you'd be right!



The Colour Management System (CMS) which makes CanonStudio a lot easier to set up for fuss free printing, is not available with the free printer driver you can get for the Canon BJC-620.

Bottom line

Product details

Product	Canon BJC-620
Supplier	Canon UK
Price	£351 Inc VAT
Tel	0121 666 6262

Scores

Ease of use	93%
Implementation	90%
Value For Money	88%
Overall	90%

Product details

Product	Epson Stylus 600
Supplier	Epson UK
Price	RRP £329 Inc VAT
Tel	01442 61144

Scores

Ease of use	95%
Implementation	94%
Value For Money	92%
Overall	94%

esp

Whether they be positive or negative, all the letters we get want the same thing – the **Amiga** bought and back in the shops

AMIGA OR PC

I too am worried about the Amiga. I have an A500, A1200, CD32 and a A2000. I also have a 486DX4, all in a full tower I built myself for $1200. You may ask why?

Well the reasons are simple, support. I have a digital camera connected, a colour flat bed and Cannon BJ620 printer, all new. None of these peripherals would hook up to my Amigas and work without alot of trouble, if at all. If I did manage to get them to work, it was not at their full capacity.

I am a general contractor and project manager for a single family home subdivision. The only programs I can use on my Amiga are Procalc (no longer made) and FinalWriterII that I use to make hard copy bills and to keep track of costs and do the payroll.

The PC I use to do everything else including War Craft II, Command and Conquer and Duke Nuke Em. The Amiga is not used for games now, is something wrong with this picture? I don't mean to sound pro PC because I love my Amigas and they are still better and easier to use than Windows 95 and I will never sell them, I just need support

Tom Schiller, schiller@netnitco.net

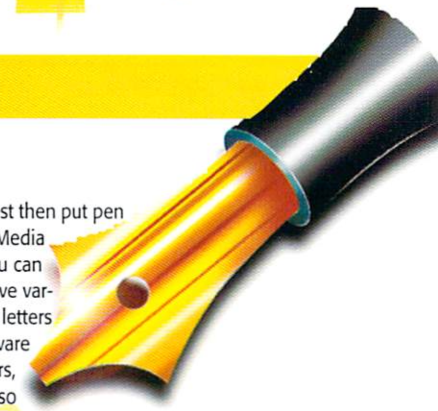
It is a sad fact that just about all peripheral companies completely ignore the Amiga when it comes to any kind of software support. The only one of note is Cannon that will supply you with an Amiga print driver for its printers if you ask them, but it is not written by them and is an unregistered shareware program. Unfortunately it looks as if this is the way things will stay.

We have to help ourselves as no one else is going to help us. They do not see the Amiga as a worthwhile platform to support. Even though, as we know, it is perfectly capable of using scanners, printers, modems and digitisers to their full capabilities. What we need are existing programmers and Amiga companies to support these devices themselves.

Luckily this has already happened, to a certain extent. ImageFX has always provided excellent support for scanners. Miami has a built in list of hundreds of standard modems for simple set up. TurboPrint and Studio II have done their bit for the best quality Amiga prints and, more recently, ScanQuix has done the same for scanners. The latest development is with the QuikCam, a low cost PC product that gives you a video camera connected to your computer. The company that makes the QuikCam was never intending to produce Amiga software, but there was no reason why an Amiga programmer could not write the software themselves, and that is what happened.

So it may be the case that Amiga does not get the support it deserves, but then why not just create that support ourselves? It would even be worth while approaching the original companies and get them to bundle this Amiga software with their peripherals.

WRITE IN!



If you have something you need to get off your chest then put pen to paper and write to ESP, Amiga Computing, Media House, Adlington Park, Macclesfield, SK10 4NP. You can also Email us at ESP@acomp. demon.co.uk We have various software bundles to give away for the best letters (please indicate whether you'd prefer serious software or games). We do try to reply to all Emails and letters, but at busy periods this is sometimes not possible so please bear with us

PATIENCE IS A VIRTUE

Back at Christmas time I finally broke down and got a copy of TermiteTCP and iBrowse. At first I was happy and quite impressed with its performance.

Now I am feeling great frustration and anger. Everywhere I go "You must have frames", "This page requires Netscape or Microsoft explorer". I figured that soon an upgrade would be out. I was wrong. Not only have none of my e-mails to Omnipresence been answered, but I find that all the other Amiga Web browsers are getting these great features such as frames and better use of Chip memory, while the people at Omnipresence just sit there. Does anyone know when they are going to get a move on?

darkman@i-d.com

As you can see in this issue, frames have made it to iBrowse. Unfortunately I cannot agree with you, Voyager only just beat iBrowse as the first frame capable Amiga browser by a couple of weeks and I personally think iBrowse does a better job of laying out pages.

You should also remember that Omnipresence probably get hundreds of e-mails each week all saying the same thing, "When's the next version of iBrowse coming out?", "Why don't you add X to iBrowse?" and if they had to answer them all I doubt they would have time to do anything else, such as updating iBrowse.

Personally I am amazed Amiga browsers have kept up as well as they have (Java script is apparently next on the cards) particularly if you remember Netscape and Microsoft Explorer must be backed up by a huge programming team, compared to the single programmer for Voyager and the small group writing iBrowse.

The real bad news is that with the latest release of Netscape 4, there are now cascading style sheets which will be another thing = the poor old programmers will have to try and implement. If the first buggy half-finished Netscapes are any guide to go by, it might take them a little while to do.

OWNING IS BELIEVING

Some months back, I wrote you a letter which you printed (thanks!) entitled 'Seeing Is Believing.' At the time I mentioned that I intended to wait until Power Amigas were available and also indicated that other Mac users were similarly interested in such a machine.

As it turned out, I put my money where my mouth is much earlier and purchased a QuikPak A4060T. Among other things, I sold a well-specced P166 PC to help finance the purchase. I guess this means I'm doing exactly the opposite of some Amigans who are leaving the scene.

I'll confess that at first I had some troubles which caused me to second-guess the purchase. None of these have anything to do with the machine itself, which works perfectly. Instead, I lacked the proper display terminal. Without the ability to display Amiga screen modes, the machine basically just sat there for over a month, doing nothing. These problems were finally resolved by the arrival of a CyberVision 64/3D card and, most importantly, an AT M1764 monitor. As you can see, I have no intention of skimping on my miggy! At this point, I also have a Scan Doubler on order for the CV64/3D.

DIFFICULTY

Another thing I soon learned is that AmigaOS is a bit more difficult to use for a newbie than MacOS, especially in terms of installing software which requires some knowledge of the Shell. Now that I've had a chance to compare the two, I see MacOS as basically a power tool and AmigaOS more like a musical instrument.

It is obviously more difficult to master a musical instrument than a power tool, but for certain folks the instrument will deliver much deeper satisfaction in the long run. I can tell you that I have quite a ways to go with AmigaOS, but I greatly look forward to the journey.

What I'm saying is this, I knew the Amiga was superior to the PowerMac when I ran AMountains and a music Mod off a CD-ROM while simultaneously rendering three fractals with ChaosPro. The Amiga did this without any noticeable strain. By contrast, the PowerMac cannot even keep a 'magic eyeball' extension running smoothly while launching a program.

My PowerMac is a 9500 clone with a PowerPC 604 running at 132Mhz. It generates nearly 200 more MIPS than the '060/50 in my Amiga. It has a faster motherboard and its PCI bus is nearly four times as fast as the Amiga's Zorro. Despite this it opens windows and launches programs more slowly than the Amiga.

Also, any volume searching tool I've tried on the PowerMac is much more sluggish than MultiView, whose response is instantaneous. The PowerMac is considerably quicker at vertical scrolling through documents, and its image viewers draw large images to screen much more rapidly and faithfully than anything I've yet tried on the Amiga.

Even so, when running on the CV64/3D, the Amiga's snappiness is at least comparable at every task and it performs many tasks much more rapidly. However, the incredible multitasking of the Amiga puts it head and shoulders above the PowerMac. Not only does this multitasking mean I can perform certain large jobs very rapidly, it is also more fun and exciting than using the MacOS.

Also, thanks to terrific British magazines such as yours (I'm in Seattle, USA), I have a tremendous amount of software at my disposal. I've done my first raytrace on the Amiga. I've used all kinds of creative software, too, things that would cost thousands to duplicate on the Mac or PC. For less than $100 I have Aminet Set 4, The Utilities Experience and The AGA Experience Volume 2. Together, these contain enough software to keep me busy for the next year!

The bottom line is this, my early interest in the Amiga was primarily video oriented. Now that I have it, I plan on making it my primary platform. I'm a new Amigan and already a true believer. I will continue to spend my lean amount of cash on future upgrades, such as a PowerUp board or whatever else I may need (like a Toaster/Flyer, obviously!). Eventually, I'll probably purchase a second Amiga, perhaps a Siamese-type system. I suppose I should urge all Amigans to keep sticking it out until new machines with faster hardware are available, but everyone should make their own choice and do what they will.

Myself, I plan on blabbing about the miggy to everyone in earshot. After all, this is the most exciting computer I've ever laid my hands on, and I'm damn sure not giving it up! Finally, I'd like to extend my thanks to the good folks at Zipperware, a real Amiga store on the Seattle waterfront. They've been exceedingly friendly and helpful in getting me started, and not surprisingly I buy Amiga Computing (and lots of other stuff) from them every month.

Steve Duff, sduff@wolfenet.com

It is really refreshing to hear a truly positive letter from an Amiga user, particularly one that has been poached from the Macintosh. It is true when you talk about the Amiga as being a musical instrument, particularly compared to the Mac. Macintoshes are designed for the lowest common denominator, which is good in certain situations, if you are an artist you just want to spend your time doing art not worrying about system conflicts.

Installing software has always been a problem with all computers. The Mac has got the processes almost perfect, with the most a user having to do is point a file requester where they want the program. Since Workbench 2 the Amiga has improved dramatically, with the Installer program giving a easy way for all levels of users. The Mac OS may be slow, but there are things a future Amiga owner can learn from it.

I do have to say, that having used Workbench, Windows 95 and System for a good while now the Amiga still 'feels' the best to use. When launching programs and moving through windows you are very rarely left waiting around, even with the slow processors Amigas are still stuck with. All this is a testament to how efficient the operating system is. When the PowerUp boards do finally arrive, I doubt you will want to go back to your old PowerMac. In fact why not just run one on your Amiga using Shapeshifter?

AMIGA SITUATION

I think I am the last living Amiga user in Japan! I am American and have been here seven years while serving in the U.S. Navy. In that time I have seen Amiga magazines disappear from the Navy Exchange, followed by the Amigas themselves, only to be replaced by Macs. Adverts in the base newspaper for used Amigas disappeared long ago and I have never even heard of any Japanese people using Amigas.

Well, so much for my sad situation, things should get better, in about 'Two more weeks'.

Richard Moore, rmoore@Japan.Co.Jp

It is very disheartening to see the Amiga disappearing, but this is because we are living in a Microsoft controlled world. As soon as you jump on the Internet you soon see a whole different world. If I said the Amiga was positively thriving I would not be exaggerating. Along with the traditional Amiga IRC and news groups (which are some of the most heavily used) Amiga Web sites such as the Amiga Web Directory and amiCrawler constantly have new Amiga related sites added to their lists each day. This proves the Amiga still generates a lot of interest, and on Browserwatch in the list of machines used to access the Internet, the Amiga is running a close third place, with iBrowse being the third most used browser.

I know it is hard waiting and waiting and waiting that bit longer for someone to buy the Amiga, but that is the way liquidators work. They will wait until they get the best possible price, probably in a couple of weeks, yer right.

Going Dotty

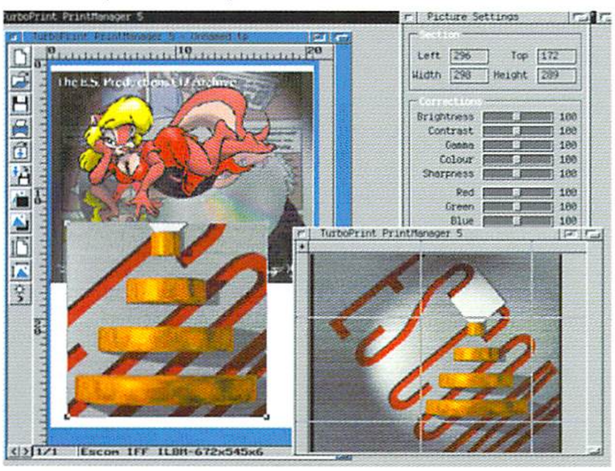
On its last release Turbo Print received a blue chip, will this latest version get the same

In computing, bits are everything. The more bits the better and when it comes to printing on the Amiga, 12 bits are just not enough. That is only 4096 possible colours or 16 shades of grey, including black and white. In the words of some kid, please sir can I have some more?

Unlike that poor unfortunate child, yes you can. TurboPrint is a system that enhances your Amiga's printing abilities or more precisely, replaces the Amiga's original printing routines for its own far superior ones. As TurboPrint provides a replacement for the original printer device, it works invisibly in the background, so once installed you will never know it is working (apart from the improvements in print quality).

When I first looked at TurboPrint almost a year ago I was very pleasantly surprised by the huge improvement in print quality I got out of my trusty old HP-DeskJet 550C – a printer I am sure one or two of you out there has.

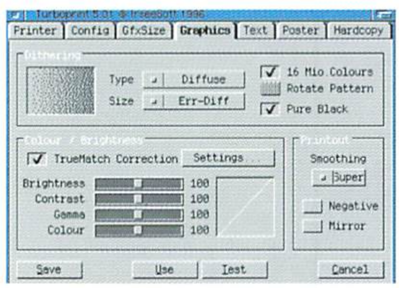
I was expecting an improvement in the colour output, as this could not get much worse than the traditional Amiga drivers produces, but the whole quality was excellent. What really surprised me was that even grey scale output was greatly improved. If you like numbers, colour output is in true 24 bit and greyscale is upped to 256 shades. So you can compare 16 million colours against the normal 4096, and 256 to 16 normal shades of grey.



Oh tell me what you want, what you really really want. I want progressive Jpeg support, zig-a-zig ahhhh

Unfortunately, as with a lot of other Amiga software, this is not as major an update as the jump in version number may suggest. All that has been added are the changes to the PrintManager and a number of new print drivers for the latest HP printers 6xx series and the support for the new Epson Stylus printers.

If you already own TurboPrint there really is not enough here to warrant upgrading, the GraphicsPublisher is nice and does its job but hardly offers anything new over the original PrintManager. The only reason would be for the new printer drivers, if you are considering one of these new printers. On the other hand, if you do not already own TurboPrint and you feel your prints are lacking, it is exactly what you are looking for.



GraphicsPublisher

The last version of TurboPrint included a utility called PrintManager that allowed pictures to be loaded sized, cropped and printed, providing the best possible quality. With this latest version PrintManager has been replaced with GraphicsPublisher. This program that allows images to be loaded sized, cropped and printed, providing the best possible quality.

Sound familiar? That is because, to all intent and purposes, they are the same program, even the project window says PrintManager, with only the program icon and about requester trying to convince me otherwise. To be fair there is not much point in IrseeSoft expending too much effort on developing PrintManager/GraphicsPublisher beyond what it already is: A handy straight forward picture printing tool.

The biggest plus on this version is the addition of virtual memory so images of any size can be handled, and it can also handle multiple images on a single project. These can be independently sized, moved around and a new cropping tool allows square sections of a loaded image to be selected.

All this works together very well, with all the extra settings windows and cropping occurring independently of each other. My only gripe with GraphicsPublisher is that though it supports all the Amiga IFF formats, GIF, PCX and basic Jpeg pictures. It has not been updated to support the new progressive Jpeg types that are rife on the Internet and would force you to use a secondary program to convert them and would sort of make a the point of GraphicsPublisher redundant.

Bottom line

Requirements

RED *essential* **BLACK** *recommended*


WB.204


RTG card

Product details

Product	TurboPrint 5
Supplier	Wizard Developments
Price	£49.99
Tel	01322 527 800

Scores

Ease of use	**90%**
Implementation	**90%**
Value For Money	**80%**
Overall	**86%**

Laser guidance

Hugh Poynton takes a look at the latest CD releases

Aminet 17

The Aminet CDs keep coming in thick and fast. Aminet 17, the February CD compilation, has everything you'd expect, apart from any noticeable theme. Most of the CDs seem to focus on some aspect or other of Aminet downloads, this one however is a little different. Instead of focusing on mods, games or demos, this CD appears to cover each area equally.

The disk includes 237Mb worth of demos, 82Mb of games and 197Mb of pictures. The games include a wide variety of programs ranging from the good to the ludicrously appalling.



As usual, the mods and music section is pretty good. The software team Ambrosia (the team behind Vulcan's latest Doom clone, Genetic Species) is represented by its hilarious James Herriot meets the Prodigy demo. The demo starts off quietly circling a puzzled looking cow. As the music strikes up, the camera darts for the cows back passage, after which we see all manner of excellent effects that make for a refreshing change from the usual spinning cube with lifeless music.

In addition to Ambrosia's priceless journey through the arse of a cow demo, there is a 230bpm (imagine a two stroke engine at high revs) techno tune from an irate Italian who is apparently angry at Italian dance music being crushed by Robert Miles type progressive tosh.

On a more serious note, it is worth mentioning that the CD does only contain 50Mb of business software and 54Mb of communications software – combined this is only half the total demos on the CD. This was pretty much the same for the last two Aminet CDs.

This isn't a criticism, however. Although there isn't a huge amount of serious utilities on the disk, what is there is quality stuff. This CD has a full version of Cloanto's Personal Write word processing package, which alone, would make the CD worth buying.

As ever Aminet's latest release is a useful and interesting CD. However, if you're only going to buy one Aminet product this month, you might be wise to consider Aminet 4.

Bottom line

Product details

Product:	Aminet 17
Supplier:	Schatztruhe
Price:	£14.99
Phone:	0500 131 486

Scores

Ease of use	80%
Implementation	80%
Value For Money	95%
Overall	83%

Aminet Set 4

Although twice the price, Aminet Set 4 is unmissable. The set consists of four CDs covering all aspects of Aminet since Aminet 3 was released – well over 4 Gigs of software.

The first of the four CDs is made up of business software, hard disk tools and utilities and the second, pictures and animations. There is a staggering amount (nearly 1200 images) of 3D animations on the Gfx disk including a prodigious amount from Star Trek fanatics.



Our Captain Tina's boldly gone...

The fun disk is pretty good and even contains a game from the deep recesses of my childhood – Blitz. Anybody who didn't have a Vic-20 might dismiss the game as useless load of old pap. However, I would disagree. Although very simple, the game is really tense. You have to drop bombs on a city (very PC) in order to clear a landing strip for your descending plane. Timing and planning is everything and the game can be harder than playing Wipeout blindfold.

Other games delights include Kennedy Approach. It seems the point of this game is to impress upon you how stressful being a Air Traffic Controller must be. After playing this you'll be damn glad they don't use Amigas at Manchester Airport. Your job is to direct various planes to land at Kennedy Airport. The only problem is that there are loads of them and they take quite a while to respond to your directions.





Ooops, broken it

The real jewel in the crown of this box set however, is the file management utility, Directory Opus 5.11. We use the Opus management system on the Amigas in the office and it's easy to use and well laid out. Rather than buy Aminet releases every couple of months, I would recommend investing in this excellent box set and saving yourself the hassle and money.

Bottom line

Product details

Product:	Aminet Set 4
Supplier:	Schatzetrue
Price:	£29.99
Phone:	+49 6171 85937

Scores

Ease of use	80%
Implementation	80%
Value For Money	90%
Overall	86%

HIDDEN TRUTH

I've got this weird theory. Admittedly it's a bit strange and when I tell people they just nod politely and say "OK Hugh, whatever". My theory is that JFK was shot by some nutter with a crap rifle. Look at the evidence. He was in a building with a gun just near where the prez was and, hey presto, Johnny gets a lesson in why not to buy a convertible. Not just coincidence, I think.

Despite the fact that I am about as far from a conspiracy theorist as it is possible to get, I was still secretly chuffed at getting a gold copy of Sadenesses new CD The Hidden Truth to preview. It boasted (in its unfinished form) over 600Mb of very interesting but most probably untrue information.

I didn't realise quite how interesting it was. The thing is, The Hidden Truth manages to combine completely fruit-loop, off the wall, Elvis is an alien stuff next to material that is meticulously researched and drawn from very respectable sources. For instance, on one page there might be a hilarious Ghost hunter's Web page complete with the most unrealistic photographs you have ever seen of one of the denizens of the 'other side' (some badly blurred electrical flex), while on another you will find details of secret US military planes and their funding drawn from some surprising, not to mention respectable, sources.

The Secret History Of The USA is particularly interesting. Much of the material is drawn from the prominent left wing libertarian Noem Chomsky. Although what you read probably should be treated with a pinch of salt, the page allows you to rifle through the US' dark secret past. Many of the facts are difficult to deny and quite damning. The participation in the Nicaraguan civil war of US and US trained units and the attacks on Vietnamese 'strategic hamlets' (or to use a less euphemistic term, refugee camps) in the 1964. A fair amount of quite convincing evidence exists to suggest that the US wasn't the nicest country to cross during the cold war.



It had a sorta Vee Dubblya sign on it. Stupid hicks get mixed up between flying saucers and German cars again

Also included are details of technological developments which few people have been afforded rare glimpses of in recent years. For instance, sightings in Scotland and other parts of Europe of a flaming 'flattened football' – thought to be a terrifying sounding unmanned external combustion airplane. This craft apparently squirts hydrogen fuel from tiny perforations half-way down its length that combust at supersonic speeds, driving it to an even faster hypersonic speed of mach 10.

Less serious topics are also covered including ghosts, Loch Ness and alien settlements on Mars. However, for me, the highlight of the CD is the chunk on Paul McCartney's death in 1967. Paul McCartney's death? Surely he wrote the excellent Frog Chorus and Mull of Kintyre a good 15 years after the alleged event?

Paul McCartney. Icon of the 20th Century. Crap driver



Bottom line

PRODUCT DETAILS

Product:	Hidden Truth
Supplier:	Sadeness Software
Price:	£29.95
Phone:	01263 722169

SCORES

Ease of use	80%
Implementation	82%
Value For Money	78%
Overall	80%

Well, there are people who reckon that, at 5am, one Wednesday shortly before Sgt. Pepper came out, Paul (distracted by a fit sort with nice legs) drove his car through a set of traffic lights on red, crashed and died. Subsequent albums, according to Beatles aficionados, are jam-packed with references to Paul's accident. These range from tongue-in-cheek references to the downright horrifying (such as in the very weird, Manson inspiring, White Album).

The material on the CD suggests that there was a big hoax, one which reflected their true ingenuity and inventiveness (and the fact they were taking skip loads of drugs). The purpose of the hoax was in fact to represent the metaphorical 'death' of the old Paul and his conversion to the ways of the Maharishi.

The whole thing is a fascinating compilation of the weirdest and most fascinating facts, photos and sounds on the Internet. The only problem I found was that I kept reciting bits of it down the pub which probably got annoying for my friends. Definitely worth a look.

APC & TCP VOLUME 1 AND 2

In a similar vein to the Aminet offerings is the APC & TCP CDs, brought to this country by Epic marketing. I wish they hadn't bothered.

Volume 1 contains a large selection of games that, on first inspection, look quite good. Nemac IV is there and a few other half-decent programs. However, I couldn't believe my eyes when I saw a game called Child Murder included on the CD. I accept the fact that you can't regulate the amount of sicko crap on the Internet, but to see games with titles such as this on a commercially available CD is unacceptable.

Volume 2 is basically a large collection of quite duff pictures. There is a fair amount of those weird and quite dodgy cat/large breasted woman pictures, all of which are pretty sad. Duff is really the only word to describe these two CDs.





Somebody should tell him that this is really quite unhealthy



Bottom line

PRODUCT DETAILS

Product:	APC & TCP Volumes 1&2
Supplier:	Epic Interactive
Price:	£7.99
Phone:	0500 131 486

SCORES

Ease of use	50%
Implementation	50%
Value For Money	50%
Overall	50%

PUZZLE GAMES PACK III

NEW

This puzzle pack 3 containes 19 more all new puzzle game like othello, nought & crosses,quadrix ect to many to list, run on all AMIGA

PUZZLE GAMES PACK 3

5 disk set only £4.99

MINI WB GAMES PACK III

This is a very unusual but extreamely fun to play Mini wb games just like normal games except it just tiny screen size example play pacman on 6x4 in & you can play few games at the same time. Amazing...run on all Amiga except (WB 1.3)

5 disk set only £4.99

ZX SPECTRUM 48k

Want to play 1000s of Spectrum games on your Amiga? All pack below are complete with SPECTRUM emulator & printed instruction , ready to run on your Amiga, nother other hardware require.

50 SPECTRUM GAMES PACK..............£ 4.99
100 SPECTRUM GAMES PACK..............£ 7.99
200 SPECTRUM GAMES PACK..............£10.99
400 SPECTRUM GAMES PACK..............£19.99

All spectrum pack are compatible with all AMIGA

MEGA 1000 Spectrum Games pack

Only £29.99 +£2.50 (p&p)
(All on floppy disk)

COMMODORE C64 GAMES PACK

45 C64 GAMES..£3.99
100 C64 GAMES..£6.99
200 C64 GAMES..£13.99
400 MEGA C64 GAMES PACK...£19.99

EMULATOR AVAILABLE
For use with these games pack
A64 V3 £1.99
FRODO 64 ..£1.99
MAGIC 64 ..£1.99

This pack contain over 400 COMMODORE C64 games, smaller pack available
Please note emulator not includes due to there are 3 excellent emulator available which you can choose which version most suit your machine spec.
Note:: the speed of the game is all depend on your AMIGA PROCESSOR
HIGHLY RECOMMEND IF YOU HAVE AN ACCERATOR FITTED TO YOUR AMIGA

ARCADE GAMES III

Brand new arcade games pack 3, This pack in clude a new collection of the best arcade games, just like pack 2 HIGHLY RECOMEND

5 disk set only £4.99

NEW BOARDS GAMES 3

The very latest Boards games pack 3, This pack contain 23 all new boards games, Must for all board games fan
RUN ON ALL AMIGA

5 disk set only £4.99

CARDS GAMES PACK II

This collection is very similar style to the above the disk are pack with some of the most playable & best card games for the Amiga. include are all the popular card games, MUST FOR ALL CARDS GAMES FANS, run on all Amigas

5 disk set only £4.99

NEW CARDS GAMES PACK III

Brand new cards game pack III, This pack contain 21 all new cards games, include blackjack, poker, klondike ect amazing value . recommend

5 disk set only £4.99

AGA A1200 & A4000 ONLY

THIS LISTING ARE FOR USE WITH AGA AMIGA

AGA001 EXTENSION DEMO Stunning demo, fast landscape anim and a rotating city, regard the best AGA demo
AGA002 FRACTAL GENERATOR fractal in 256 colour.
AGA003 WORKBENCH HACK many hack/toy/blanker etc
AGA006 NEW SUPER KILLER know kmow & kill over 316 type of virus not for all A1200 owner
AGA007 MINDWARP very first demo for the A1230
AGA008 KLONDIKE DELUXE AGA (3D) the best A1200 card games with glamours lady as cards face 18 + only
AGA011 SLEEPLESS NIGHT 3
AGA012 PLANET GROOVE Truly A1200 Demos
AGA013 MOTOR INVADER 2 (2D) Brillant INVADER game
AGA015 POINT OF SCALE Great A1200 only demos
AGA016 CHROMAS- Fairly good demo.
AGA017 WORLD OF MANGA (4DISK) magnificent Japanese comic slide show include Japanes Chick etc recommend
AGA021 MAGIC WORKBENCH Improve the look of your WB & add some function to your WB really BRILLANT
AGA022 WB 3 UTILITIES load of Wb 3 only utilities
AGA023 U-CHESS the best chess program games so far but require 4 megbytes. Brillant graphic
AGA024 WORKBENCH 3 SCREEN Great back drop
AGA41 ADULT SLIDE Vol 1-9 (2 disk each) *see below
AGA62 BODY SHOP VOL 1-7 (2 disk each) *see below
AGA80 FITCHICK vol 1-3(2disk each) *see below
to order any disk above just state disk code & volume no? (remember 2 disk per volume)

DEGRADER

AGA090 A1200 FIX DISK COLLETCION 1
AGA091 A1200 FIX DISK 2 COLLETCION 2
AGA094 RELOCKIT V1.4a latest. run A500 SOFTWARE
AGA306 A1200 FIX DISK VOL 3 (new july 95)
All disk above are design to make any old A500-A600 Amiga programs/games eto to run on your A1200/A4000
MUST FOR ALL AGA AMIGA OWNER. RECOMMEND

AGA097 A1200 UTIL - AGA TESTER, SYSINFO etc
AGA098 ACTION REPLAY V4 Complete ACTION REPLAY.
AGA099 MADFIGHTER 2 brillant street fighter clone
AGA100 AGA BLITZ SCREEN BLANKER
AGA101 FAST GIFF 2 display GIFF pic In Workbench.
AGA102 AGA DIAGNOSTIC - NEW system tester
AGA103 BLACK BOARD AGA decent Image processor
AGA105 QUICK GRAB AGA -grab AGA screen FICTURE
AGA110 WORLD BEYONDS 1 (3) stunning 256 COLOUR fantasy art. leave atari userbreathless
AGA114 SMELL LIKE CHANEL NO5 brillant demo ray trace picture ever release on the A1200
AGA121 MAGIC FACTORY 1 STAR TREK (5 disk)
AGA133 AGA UTIL V1&2 (2) AGA util compilation
AGA135 AGA UTIL V3 &4 (2) more of above
AGA137 MULTIBOOT- 4 various version A500 EMU
AGA138 OFFICIAL WORKBENCH 3 HARDDRIVE INSTALLER
AGA139 WB3 HARDDISK PREF & INSTALLER Installing
AGA140 CROSS DOS PLUS v5.1 read/write PC files
AGA142 SUPER LEAGUE 3 -latest manager games
AGA144 SPEAK & SPELL + educational software for kid
AGA145 BIG TOPS (18 + only)HMMmm
AGA146 KELOG LAND -brillant platform games
AGA150 ACTION REPLAY V5 - NEW UP DATE TO V4
AGA160 GIGER TRIZ very playable 256 colour tetriz
AGA162 FATAL-BLOW new STREET-FIGHTER 2 clone
AGA166 CINDY CRAWFORD Vol1 (2 disk) latest release
AGA166 INFESTATION (3 disk) The ultimated AGA demo
AGA170 CINDY CRAWFORD Vol II (2disk) amazing
AGA172 VIDEO TRACKER AGA-ultimate demo maker
AGA174 MAGIC WB EXTRA vol 1 & 2 (2disk)
AGA180 GIF BEAUTIES Vol (11-18) 8 more girls disk
AGA189 FRIDAY AT 8 another brillant AGA demos
AGA190 ASSASIN MULTIVISION AGA pic viewing util
AGA192 ALIEN FRENZE 2 player blasting +power up
AGA194 BIG TIME SENSUAL (2disk) SPACE BALL 2
AGA200 MASQUERADE 2disk brillant puzzle games.
AGA202 RAM JAM 94 it cat be done (2disk)
AGA203 EXPLIXIT 2 DEMO new effetc welldone.
AGA204 COMPLEX ORIGIN 2disk require 2 diskdrive
AGA206 TREASURE OF TUTANKHAMUN- eductaion tool
AGA230 LOVE 2 disk-simply brillant DEMOS
AGA231 AGA UTIL 7 & 8 (2 disk) ,More USEFUL util

AGA234 KNOTTY-Stunning AGA sliding pictre puzzles
AGA240 LOTTERY WINNER hope fully will improve your chance of winning a jack pot.GOOD-LUCK
AGA241-258 AGA GAME-GALORE AGA 01-18 lot of games
AGA251 PACKMAN AGA -the best pacman yet
AGA252 ROCKET PD - Super thrust clone brillant graphic for 1 or 2 player
AGA253 REAL DEMO stunning special effetc
AGA254 DIRT AGA Brillant 256 colour effetc
AGA255 DELIGHT EXPLORE excellent demo
AGA256 KEFEREN AGA Demo lot of effetc
AGA257 MINDMIST RAVE great rave music.
AGA258 OXYGENE Fantastic demo
AGA259 INTEL-OUT another very good demo
AGA260 SOMEJUSTIC94 Demo of the month brillant whirl effetc. RECOMMEND
AGA262 TO THE DEATH very good STREET-FIGHTER clone with very good graphic.
AGA263 GEORGE GALAXO (2disk) brillant multilevel shoot/platform game. RECOMMEDN
AGA265 MISSILE OVER ZENON (2disk) Brillant 3D missile commander with fantastic graphic
AGA266 TEAM-HOI DINO PLATFORM excellent dino platform Note:this disk was a commercial games
AGA274 MUSIC 2 SURVIVE 2disk 8 excellent music master piece. well worth getting
AGA271 RAVE MAXIMUM OVERDRIVE II (2disk)
AGA278 CHANNEL Z ISSUE 1 (AGA) (2disk) AGA base disk magazines. RECOMMEND
AGA disk magazine topic demo/music
AGA285 WORKBENCH BACKDROP VOL 3
AGA295 DE-LUXE MONOPOLY- Board game.V addicted
AGA296 DONKEY KONG Arcade classic conversion
AGA297 BOMB PAC Extreamly good to play
AGA298 ROCKET 2 set deep underground brillant graphic. even better with 2 player
AGA299 SCRABBLE-Now fully run on all Amiga
AGA300 MAGIC WB V2. Demo of version 2
AGA302 TUTANKHAM II(2) Education-Egyptian MUMMY
AGA303 PAMLA ANDERSON(2) 18+ only BayWatch Babe
AGA304 BODYSHOP V8 (3) more bikini beauties
AGA305 TIMEZONE (2) V.Good graphic adventures.
AGA307 DENTAWOLF dooms demo
AGA308 NAXIS- Really show what AGA graphic co do
AGA310 FEARS (2d) dooms clone demo
AGA312 JINX (2d) Fantastic arcade puzzle
AGA313 RAM JAM THE TASTE DEMO.very wicket demo.
AGA315 ILEX MYSTIC. New AGA demos
AGA320 KLONDIKE 3 (4disk) Hd require & 2meg +we aslo have a list of 25 cards for above.
AGA322 HOT-BABE 1 (2) MUST BE OVER
AGA323 HOT-BABE 2 (2) 18
AGA323 HOT-BABE 3 (2) BEFORE
AGA324 HOT-BABE 4 (2) ORDER ANY
AGA325 HOT-BABE 5 (2) OF THE HOT-BABE PACK
Hundred of quality Magic wb icon & back drop
AGA388 DESK-TOP MAGIC- 12 animated screen blanker
AGA389 WAR OF THE WORLDS -full 3D games
AGA390 FEAR 2. Brillant 3D graphic games like
AGA391 PSSST Amiga version of Spectrum games
AGA393 FEAR II -Brillant 3D game play just like DOOM on the PC Garrenteed you impress.
AGA393 PC EMULATOR V3- Latest PC emulator
AGA400 HYPER RACE (2) Super racing games
AGA410 CINDY CLAWFORD (3) new
AGA411 ELLE MACPHERSON (3)
AGA412 CLAUDIA SCHIFFER (3)
AGA413 BIG GIRLS II (3)
AGA414 GIRLS GIRLS (2)
AGA415 NIKY TAYLOR (2)
AGA417 KYLIE MINOUGE (3)
AGA418 FEMALE BODY BUILDER (3)
AGA419 EXCELLENT CARD GAMES 3 latest
AGA420 POKER & BLACK JACK DELUXE (3)4MEG
AGA421 COLOUR WB make your WB more colourful
AGA422 RIDGE RACER Demo on the Amiga,
AGA423 DRUG STORE DEMOS (2disk)
AGA424 DREAM WALKER (2) Demos
AGA425 MYSTIC DEMOS(2) 95 excelllent demos
AGA426 ORIGIN 2 (2 DISK). Amazing

← SEE PAGE 1 FOR MORE SOFTWARE FOR YOUR AMIGA

SOFTWARE2000 NEW CD Volume 2

Continue where our first CD left off, include all the latest relase title & packs from the SOFTWARE2000 Library.
Order now to take advance of our special pre-release prices of only £14.99+70p (p&p) order must reach us by 10 april 97, (note sale price £19.99)

£19.99
Out mid April 97

PRE-RELEASE ORDER ONLY

£14.99

AVAILABLE NOW!

BACK UP ANY HARDDRIVE TO CD +UP TO 600 FREE PD DISK ONLY £49.99

Same day service (by pre-arrange appointment onl
Phone for detail

LINK AMIGA <>AMIGA

software for both machine +special cable only (£15.00)
feature very very fast transfer, share device between Amigas

LINK AMIGA <>PC

Amiga & PC software & cables supplied, Very Fast transfer up to 57600 bps twice faster than the fasted modem (PC require window 95) only £19.99

Various pack

All pack below come on 5 disk only £4.99 per pack

To order any pack below just write the pack name & if more than one pack available please state eg: CGfont pack3 to order CG font pack no:3 ect

Clip-Art

These clipart below are in IFF format, this format is universal compatable with any paint programe or any DTP eg Dpaint, Wordsworth, Pagestream,ect



Mono clip art pack 1,2,3,4,or 5
colour clip-art pack 1,2,3,4or 5
(please state pack require 1-5)

Fonts pack

These font pack are suitable for any paint programe eg DPpaint, Ppaint ect

WorkBench font pack 1..(5 disk full of fonts)
WorkBench font pack 2..(5 disk full of fonts)
Large Colour & logo type font pack 1 (5 disk)
Large Colour & logo type font pack 2 (5 disk)

CG-FONTS

These high quality fonts pack scalable & are compatable with all version of D.T.P, wordsworth, Page--stream, WB3, ProPage 2, Finalwriter, ect

Computer Graphic FONTS pack 1,2,3,or5
(5 disk per pack please state packs reqire)

3D Object

Imagines object pack 1 or 2 (5disk per pack)
Imagines true 3d font pack 1 (5 disk)
Caligari object or true **3D fonts** (state) (5 disk each)
Light Wave object pack 1 or 2 (5 disk per pack)
Light Wave true 3D fonts (5 disks)
Real 3D or true **3D fonts** Obect (state) 5 disk per pack)

All pack in these box come on 5 disks & cost £4.99. Per pack. All pack are compatable with all amiga

ALIEN & UFO multimedia



An amzing 9 disk pack with 100's of documrent & official UFO, Alien, abuction, Animal multilation, top secret goverment coverup many with picture to back up the claims, picture taken direct from this pack. highly recommends, compatible with all Amiga (A1200 & A4000 owner please state for special AGA version)..

Alien & UFO (9 disk) only £8.99

UFO THE CLOSE ENCOUNTER

More chilling document on UFO, ALIEN, top secret goverment x-file on UFO ect
6 disk set only £ 5.95

LOTTERY WINNER

NATIONAL LOTTERY

EXCELLENT COLLECTION OF VARIOUS LOTTERY WINNER PREDICTION PROGRAMS
HIGHLY RECOMMENDED
pack only £4.99

18 DEMOS

MUST BE 18 AND OVER

X80 CINDY CRAWFORD (2)
X74 MADONNA (SEX) (3)
X01 SHOWER GIRL
X03 BODY TALK (2)
X09 MARIE WHITTAKER
X24 SABRINA SPECIAL
X25 DIE FILKINGER
X26 MADONNA EARLY DAYS
X28 KATHY LLOYD
X30 MEGA-MAID
X31 CALENDAR GIRL
X32 MAYFAIR
X33 UTOPIA (4 DISKS)
X45 GIRLS OF SPORT
X49 PAGE 3 GIRLS
X70 GON GON GIRL
X71 TINA SMALL
X91 CINDY CALENDAR '95
X96 HOT BABE 1
X97 HOT BABE 2
X98 HOT BABE 3
X99 HOT BABE 4
X100 HOT BABE 5
X101 BIG GIRL II
X102 FEMALE BODY BUILDER
X103 GIRLS GIRLS
X105 ELLE MACPHERSON
X106 CLAUDIA SCHIFFER

BUSINESS SOFTWARE

U007 TEXT PLUS 2.2e easy to used word processor
U023 BANKING Home account program
U088 LABEL DESIGNER design your own labels
U087 CALV 1.2 Excellent Database prog. RECOMMENDED
U144 DESKTOP PUBLISHING The best PD DTP available
U128 BUSINESS CARD MAKER (not A1200) brilliant
U160 600 BUSINESS LETTER very handy. Get it now
U811 BUSSINESS CARD MAKER - can Print in color
U101 DATA BASE WORKSHOP (2) briliant PACK
U121 SPREAD SHEET Very easy to used spreadsheet
U183 QUICK BASE Very powerful Database. Easy to use
U112 RIM DATABASE powerful database + full DOC
U195 AMIBASE - Professional II The best database yet
U227 TEXTRA Can edit serval document at once
U239 FLEXI BASE Small easy to operate database.
U256 PENNY WISE Very powerful database.
U297 VISICALC Great database lots of fuctions
U356 TEXT-ENGINE V3.4 - full feature wordprocessor
U343 LITTLE OFFICE - databases/wordprocessor/spreadsheet
U345 HOME BUSSINESS JOURNAL - Easy to use database
U357 BON APPETIT DATABASE many receipt.
U364 HOME ACCOUNT-Account program
U368 AMICASH regarded as the best account prog. Excellent
U369 JOURNAL full feature account program
U385 LORAN NOTE BOCK database & world map.
U390 DATA BASE compilation - best seller to date
U398 MORTAGE CALC calculate mortage repayment rate etc
U426 MONEY PROGRAM very good account program
U437 ACCOUNT MASTER V2.8 new account program
U520 HOUSE INVENTORY - ideal for home insurance
U559 ADDRESS PRINT V2.1 Store & print addresses
U567 TEXT-PLUS V 4.0 pro requires HD & 2meg
U681 TEXT ENGINES V4.1 latest 36,0000 word spellchecker.
U688 INVENTORY 2 details of home contents, for insurance
U712 EDWORD PROFESSIONAL truly the best wordprocessor
U722 EASYCAL + massive spreadsheet max 92583 cells
U756 PAY ADVICE ANALAZER - money prog.
U802 ADDRESS PRINTING print addresses on labels
U889 PAY ADVICE V3 account program
U810 LABLE MAKER-Print labels etc. New
U900 THE MONEY PROGRAM - Accounts
U901 LOANS ACCOUNT
U954 ONFORM One of the best Invoice makers
U959 ACCOUNT MASTER v2.2 (latest) programs up to 1000 entries per account

LITTLE OFFICE 2

New Release includes
550 Business Letters
Word Processor
Calendar
Name & Address Database
All this for only £1.99
COMPATIBLE WITH ALL AMIGAS

HARD DRIVE & DISK DRIVE

Space Doubler
Epu V1.6 this doubles the size of your HD or Disk Drive storage capacity. Recommended.
U971 EPU V1.6 ONLY 99p
SUITABLE FOR WB2/3

HARDS-WARE Project 3

Build dozen of project included an accerator for £15, put your Amiga in tower case, use PC part eg Disk drive, ect H recommend, not suitable for beginner

3 disk set only £5.00

NEW TITLES

G938 ULTIMATE TOUR TENNIS – (2 disks) Excellent tennis game
G939 DARK ANGEL – (NOT WB1.3) Superb arcade adventure
G940 RAISE THE TITANIC – Good 3D Adventure game
G941 PHANTOM – Excellent shooting games (Defender 96)
G942 MACDONA-LAND – Brilliant game similar to Zool (not A1200)
G943 JOUST III – Brilliant C64 game with updated Amiga graphics
G944 DELUXE GALAGA V2.6 – The very latest Galaga. Highly recommended
G955 LAZER RACE – Good Tron type, extremely addictive to play
G956 TRAIN-DRIVER SIMULATION – The most realistic train sim.
G957 MASTER BLASTER – Kill various monsters with bombs
G958 KNOCK-OUT Mini derby destruction, very addictive
G959 DUNGEON HERO – 3D Graphic adventure similar to Doom
G960 MORTAL KUMQUAT 3 – Weird but fun beat-em-up
G961 CODE NAME NANO – Superb Thrust Clone (Nano Fly 2)
G963 POKER MANIA – If you like poker then this is for you
G965 LEATHAL FORMULA – Adventure similar to Monkey Island
E253 BEGINNER TYPING TUTOR
E254 WORD PUZZLE PRO - Create CrossWord puzzle to solve puzzle
E256 KID DISK 7 – Another very fine education program
E257 A-Z COUNTRIES OF THE WORLD
E258 UK COUNTIES Similar to above but this is based entirely on ENGLAND, WALES, SCOTLAND AND NORTHERN IRELAND
E259 BASIC ELECTRONICS V1.5 (2 Disk) - For electronic fans
E261 MASSIVE GUIDE TO THE INTERNET V2.3
AGA429 POWERDROID - 96 New Asteroids with brilliant graphics
AGA430 ULTIMATUM - The ultimate 3D Tank Battle
U1010 WB2 INSTALLER - Install A500/A600 workbench to HD
U1011 TURBO-CAT PRO V1.2 (not WB1.3) - Create catalogues
U1012 TEXT-ENGINE V5 (not WB1.3) - The very latest wordprocessor with spell checker. This is the full version, highly recommended
U1013 DIARY 2000 - Use this just like a real diary
U1014 TOTAL ECLIPS - Disk magazine 1
U1015 NEW CHEAT DISK V2.1 (2 disks) - Includes some games. Fix
U1016 ULTRA ACCOUNT - Another very good accounts program
U1017 PRO LOTTERY 96 - The very latest & best lottery program
U1018 PRO GREYHOUND - Like Pro Gamble but for dogs
U1019 AUTO STEREO GRAM V4 - Latest Magic eye generator
U1021 ELECTRONIC ADDRESS BOOK
U1022 PRO FOOTBALL 1.1 (2) Football predictor like Pro Gamble
U1023 REMDATE - Reminder for important dates
U1024 SHAPE SHIFTER V3.3 - The very latest Mac emulator
U1025 MESSY SID 3 - The latest PC<>Amiga disk converter
U1026 HD GAME INSTALLER 4 - Install loads more games to HD
U1027 SOFT MEMORY - Double your computer memory. This version does not require HD or MMU. Give this a try, recommended
U1028 MAGIC USER INTERFACE V3.1 - Update to version 2.3
U1029 ORIC 48K EMULATOR (not 1.3) At last it works
U1030 MSX II Emulator V2.1 - (WB3.0) MSX computer on
U1031 900 AMIGA GAMES HINTS & CHEATS V4 (2 Disks)
U1032 VIRUS CHECKER V8.2 (not WB1.3) - Latest

PLEASE ORDER A DISK CATALOGUE ADD 70P OR 3 X FIRST CLASS STAMPS WITH ORDER

Purporting to run everything from Windows to Quake on your very own Amiga, does PC-Task 4.1 make the grade?

Sleeping With the

It is the eternal cross that every Amiga owner has to bear, PC software. You can't live with it, you can't live without it, but apart from going out and buying your own PC what are you supposed to do if you need access to the software? Well they do say you should keep your friends close and your enemies closer, and what could be closer than to actually have a PC running on the same computer you are already using?

This little miracle is achieved through software called an emulator. Anyone who has used and Amiga for a while could not have missed the large number of emulators already doing the rounds. The most famous ones out there are Emplant and Shapeshifter both excellent Macintosh emulators and PC-Task is a close runner-up. Whereas the former have the advantage of the Mac using the same processor as the Amiga, PC-Task has no such luxury and has to translate all the Intel instructions used by PC programs.

Packaging with PC-Task is rather simple; just a manual with a number four stuck over original three and a single disk. The provided Amiga installer will simply copy all the files over to your Amiga and shove it all in a new drawer.

The whole of PC-Task is deceptively simple to set up, select what screen modes you want, how much memory the PC should have and what hard drive partitions or hard disk files it has. Once that is done you can click start and away you go. This is where the real fun begins – you can now experience the joys of setting up a PC from scratch.

If you have an HD floppy drive, you will have no problem setting things up as just about all PC software now comes on HD floppies. It is possible to get DOS on DD disks, but you will normally have to send off for them.

Adding mouse and CD-ROM support is as straight forward as it is going to get on a PC. Supplied drivers are provided with PC-Task and you are just left with the task of configuring the PC side's Config.sys file. This is helpfully explained in the manual, though a second file has to be obtained, via FTP.

This time around there are two versions of PC-Task for you to choose between. One is called interpretative and the other is dynamic. The new dynamic version is the major addition for version four and works in a completely new way. The old interpretative emulator works as most traditional emulators; as each instruction is run it is translated to 680x0 code, just as an interpreter translates each line they get it.



Dynamic emulation goes about things in a very different way. Instead of having to interpret each separate instruction (which means if a program gets in a loop the emulator could end up interpreting the same lines thousands of time over), the dynamic emulator takes a large chunk of the program and converts it to 680x0 code. This section of pre-compiled code is then used until program execution jumps to another section of the program, where another chunk of code is compiled.

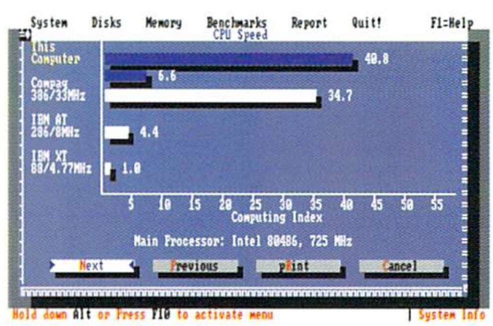
This means that section of code will run a lot faster. There is, of course, a price to pay. Firstly this compilation process takes additional time and you do notice a large increase in the time it takes for programs to load. As PC-Task compiles the program code, the other is memory. The compiled code has to be stored separately and this requires memory, quite a lot of memory in fact.

The smallest memory cache possible is 512k, so if you add this on top of the basic PC memory requirements, the memory need to run PC-Task itself and you can say good by to 2Mb. Add on the memory used by the Amiga side and you can see that an expanded Amiga is necessary to get the best out of this version of PC-Task, not only speed wise but so you can run software.

In use, the dynamic version has its pros and cons. The obvious bonus is the added speed and depending on what you use, you will get different results back. As it compiles programs in memory, running a simple benchmark will show what sort of speed increase you will get of programs that fit into the memory cache and, on average, you get over a five fold speed increase over the interpretative version. More realistically you can



Even an 060 can only manage just under five frames a second, quite painful to watch



You can see what a large difference the Dynamic version of PC-Task has on the benchmark. In reality it normally runs around twice as fast

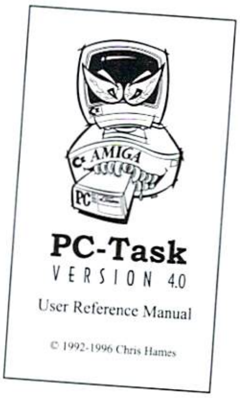


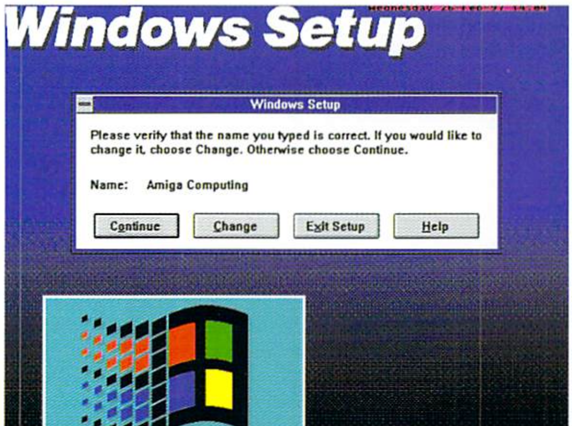
DOS programs show as edit zoom along on even a fast 030

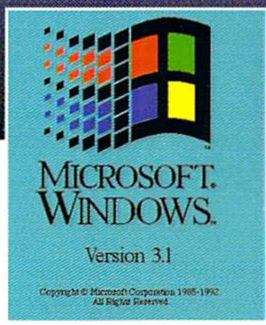
I couldn't resist putting a little speed comparison in. I only ran two bench marks, but for both versions of the emulator. One is a straight forward speed bench mark compared to a basic 8086 XT, while the other is a complex 3D bench mark showing the frames per second reached. You may be surprised by how close the dynamic A1200/030 and the A4000 benchmarks are, but this relies heavily on fast memory access that the A400 does not have, unless you have an accelerator fitted.

Machine	*Interpretative*		*Dynamic*	
	XT	FPS	XT	FPS
030/40Mhz	1.2	0.5	12.1	1.6
A4000/040	3.0	0.9	15.5	1.9
A1200/060	6.6	2.1	40.5	4.6

Enemy







Windows on PC-Task, but the still life version it took 1½ hours to install

expect the dynamic version to run programs around twice as fast.

The major down side is the time taken to initially load programs, even small programs have a delay of a second or two as they start up and when it comes to access new areas of a program you will also notice a slight delay as the new code is compiled. However, once this is done everything flows along very nicely.

Memory speed also plays a role with the dynamic version as it has to be accessed frequently. This shows up in the dynamic benchmarks where an A4000 running 25Mhz 040 only just out performed a 40Mhz 030 based A1200 and I would imagine a 50Mhz system would probably match an A4000. This is down to the poor memory access that the A4000 has been lumbered with. If however you have an accelerator with on board memory this is not a problem and the A4000's own memory bus is bypassed.

As far as PC emulators go, PC-Task does everything you want; 486 emulation with virtual memory paging supported in the dynamic version. The drawback is that even with an 040/060 you are going to have to stick with DOS based packages, basically you get back the performance of a decent 286. This is no bad thing, as there are still plenty of good DOS packages out there including CAD and programming programs. I could have installed Windows 3.1, but to be honest I couldn't be bothered sitting around waiting for it to load. AC

HOW DO THEY DO THAT?

Unless you have had your head buried in the sand for the last few years you should know that your standard IBM compatible PC runs off the Intel range of processors that have a incompatible set of instructions to that of the 680x0 processors used in the Amiga. So to be able to run PC software on your Amiga, you at least need a program that will translate the Intel instructions to those understood by the Amiga's processor. This is essentially what an emulator does, it allows the Motorola processor in your Amiga to run PC programs. So your Amiga can emulate a PC. Sounds simple doesn't it? It is far from a simple task however, and requires a mighty load of processor power to pull it off.

If all that was required of the emulator was to interpret the Intel processor, that might be alright, but the story does not end there. The emulator has to fool programs into thinking that devices connected to your Amiga are actually PC devices, and that the memory on your machine really belongs to it. This is done through the PC's BIOS. This is a little piece of software that, on a PC, normally lives on a small ROM and is what actually allows the PC to get up and running and boot Windows or DOS. The Amiga has its own version of a BIOS called Kickstart, as it kick starts the machine identifying what drives are attached to the machine and what sort of boards are plugged in.

Bottom line

REQUIREMENTS

RED *essential* **BLACK** *recommended*

PCDOS, 2 Mb RAM, 020, 2/4 Workbench, RTG card, HD Drive, 030/040, 8 Mb RAM or above, 80Mb HD

PRODUCT DETAILS

Product	PC-Task 4
Supplier	Wizard Developments
Price	£69.99
Tel	01322 527800
Product	E-Mailsales@wizard-d.demon.co.uk

SCORES

Ease of use	95%
Implementation	89%
Value For Money	85%
Overall	90%

amiga computing advice service

Thank the Lord for the Internet – this month's selection of troubled souls come courtesy of the Information Super Highway

Tower Madness

I was wondering if it was easy and safe to have your Amiga 1200 put into a tower case. How does this work, who makes them, which one would you recommend to get? I can't stand having all sorts of things hanging onto and off my Amiga 1200.
darkman@i-d.com

There are a number of different solutions available depending on what you want. If you want to go for the full solution of motherboard and everything in, there are a number of options. You could go for your own solution, buy you own tower, sort out the power supply and connections, but I would strongly advise you not to try this unless you know exactly what you are doing.

If you do it yourself you will have problems fixing the mother board in place and also connecting up the power. A good tower will allow you to connect up two 3.5" IDE drive and power them off a PC power supply. A better system will come with an EIDE adapter so up to four IDE devices can be used. The extra power is also needed if you want to get one of the 40Mhz 040 cards that are around.

It is possible to convert a standard PC power supply so that you can run your Amiga of it and so power all these bits. However, as with anything electrical that is mains powered, I would not recommend you try it. What I will say is that there are files on Aminet detailing how to perform the alterations, but you will have to find them yourself. Anyone willing to try this should have enough brains to find the files themselves.

Currently there are two ready made solutions – one by Microvitech and the other from Eagle Computers. Both are German companies so you may have trouble getting hold of their products unless there is an US distributor. I have looked at the Microvitech tower and it was very well made; all custom moulding so it fitted the Amiga perfectly. The mother board is attached to a cradle that then slides into the tower for easy removal and you get the big advantage of additional of Zorro II slots and a video slot. A version with Zorro III slots was on the cards, so you could get access to all the latest 'big box' Amiga cards.



Micronik's custom tower snugly takes all your A1200 bits, adds Zorro II slots and more

Workbench 3.1 vs 3.0

I have used Workbench 3.0 for a long time, but now I can boot my Amiga with a 3.1 ROM image, using a great program called BlizzMagic (a program for Blizzard boards). Anyway, now that I have the 3.1 ROMS I thought it would be nice to upgrade to 3.1.

I am worried to do so however, as I have done a great deal of upgrading already, such as the New version of SetPatch, Various Libs, and other small aspects of Workbench. If I do upgrade some of the files on my system may already be newer versions than on the 3.1 disks. My question is, will all the Workbench programs in my current system be replaced? Or will the Installer check each version before installing?
darkman@i-d.com

Talk about paranoid. Personally, I wouldn't worry too much about Workbench files being replaced with older versions as really the basic Workbench installation only has a small number of files, especially when compared to something like Windows.

You are correct in thinking the installer will just copy over the files without checking, it could do and it might, but as far as I can remember it simply spams over the Workbench files.

If you are so worried about upgrading, why not make a backup of the files and libraries you have upgraded, install Workbench 3.1 and then copy any files you find that are older than the ones you have? This would probably include SetPatch, the library files and Datatype classes. I doubt that, even if newer libraries are overwritten, you

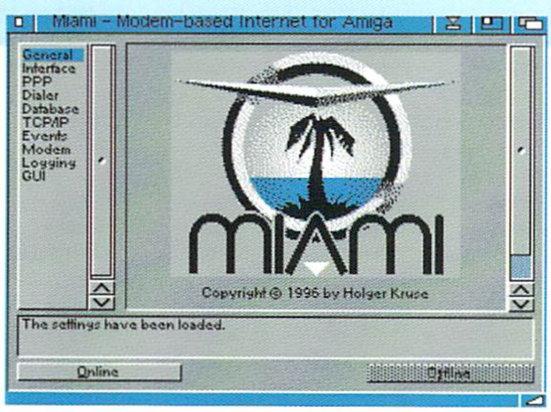
SMTP Mail

I have just read the letter on page 43 in the February edition, about the problems of getting SMTP mail to work with MiamiTCP. I use Miami on a Demon account, and was one of the first to setup Miami with Demon and helped a few people out with setting theirs up. So many in fact, that I decided to write some instructions for it.

On my homepages software section is a file called Miami4Demon.lha, it includes all the instructions to get SMTP incoming mail, NNTP news and outgoing mail/news via Mailkick, all working using Miami.

It also includes an ARexx script to do this automatically on connection (registered version of Miami only, can be run manually if unregistered). It is freeware, seeing as its only a bunch of instructions and the ARexx script is only a couple of lines long.
Mark Boothroyd, boothy@weirdness.com>

Cheers for that, so anyone having problems receiving SMTP mail under Miami, or such like, here is an end to your problems. Point you browser to http://www.boothy.demon.co.uk/ software.html#miami and download the Lha file there.



SMTP mail, Miami ooh must be in heaven

A FEW QUESTIONS!

I have a few questions. Recently I bought an A1200 and I was wondering if is possible to run all A500 games and demos on the new machine?

If I am going to buy a monitor, which one shall I buy? I don't care so much for the games but I would like to have a sharp screen when using WB.

Finally, I am planning to buy a CD-ROM. I have heard that I will need another power supply for the CD. Is that true? Thank you very much.

Petter Flemberg, flemberg@hem.passagen.se

In a word, no. Generally compatibility between the A1200 and the A500 is poor, many games do not run and most demos will simply hang. You could blame the A1200 but the problems occur due to a number of things. Firstly the programmers have made vast assumptions about the Amiga's display and when it comes to running on the AGA chipset, results in a corrupt display.

Other problems can crop up with regards to the operating system, some programmers assumed parts of the operating system will always be in the same part of memory or the ROM. Also the A1200 processor can give certain games and programs problems. As it has a cache, certain types of code can cause errors and the program to bomb.

There are certain things you can do to alleviate the problem, allowing you to run more programs than you would normally be able to. At the most basic level you can use the Amiga's early startup menu, accessed by holding down both mouse buttons when you turn on or reset your machine. From here you can turn off the CPU cache and also turn off the advanced parts of the AGA chipset. This does help running older programs but will not work for everything.

There are other programs available that help run even more A500 programs, one is called Degrader and has lots of options, another way is to get hold of a copy of the old 1.3 Kickstart ROMs – this can get certain programs running. However, as you go through these different ways the number of programs you are going to get working gets smaller and smaller.

Monitors on the Amiga always cause problems. You have two real choices. Firstly you can get a multi-sync monitor that will allow you to use all the Amiga's display modes. This has to be one that can sync down to a 15Khz horizontal refresh rate, and your choice is really limited to one of the old Commodore 194x or the new Microvitech range, that are not brilliant but are good enough.

The other option is to go for a VGA monitor, unfortunately the AGA chipset can only reach the lower limits of the VGA display rate around 30Khz horizontally and you are limited to the Euro72 or Multisync monitor modes. Just to have a moan, if games did use the operating system you could play them on a monitor as the screen would be promoted to a mode that could be displayed. Any new SVGA monitor will give you a good sharp display.



GoldenImage provide a simple solution to Amiga CD-ROM without the extra power leads

Jargon box

SMTP - Simple Mail Transfer Protocol, an old way of transferring files between Unix machine. Now used to transfer your e-mail to your ISP

POP - Post Office Protocol, a protocol designed to allow single user hosts to read e-mail from a server. Lets you get your e-mail from your ISP, widely used as a replacement to SMTP

Refresh - Used to explain how quickly the screen image is re-drawn

VGA - Video Graphics Array, a display standard set by IBM. Originally limited to 640x480 in 16 colours at set display rates. This has slowly been upgraded as hardware allowed

Workbench - The Amiga's native graphical user interface that allows you to access drives, devices and programs on your Amiga

WORMED

I have always fumbled my own way around any problems I've encountered or asked friends for advice. Now that most of my friends have taken the PC road however, I thought I would turn to you.

I've been having problems with Worms - the game, not the disease! (thank god! - ed) It seems it's looking for a CD32 joy pad and won't work with my mouse. I borrowed a joy pad and changed the settings, but the next time it still didn't accept my mouse.

The only time I got it to work was when I booted without the startup-sequence, disconnected my CD-ROM, removed my CD files (mountlists, DOSDrivers etc.) and started it from shell. Oh yes, it also works if disable my hard drive and run it from floppy but then it takes yonks to load and I don't have access to all those custom levels.

I don't want to have to do this every time, so could you help? Am I using the wrong device drivers? Should I remove my joysticks first? Do I wear the wrong socks? Anything you could suggest would help as I am being deprived of the best game since the last brilliant game came out.

I am a Web designer for an Internet provider. What software would you recommend to manipulate graphics. I have PPaint6, Photogenics 1, DPaint 5 and others but they don't have the features I need to produce decent Gif images. What would you suggest? Thanks for 'listening'

Daniel Warner, dwarner@dialin.net

It sounds to me as though you have a CD drive which came with CD32 emulation, so when you run Worms it finds the extra CD32 system libraries thinks it's being clever and assumes you will want to use a CD32 joy pad. Most games on the CD32 auto-detect if you are using the joy pad or mouse, but obviously Worms does not.

As you have already found out, removing the CD from your system allows Worms to run. The way you went about it was a little extreme, but it worked. The normal way of disabling the CD is to move the CD0 DOS driver from the DOS driver drawer into the storage directory. Hopefully this will provide an easier way to disable your CD.

What features do you need to produce decent Gif images? Here at Amiga Computing we use Photoshop on the Mac to prepare all our Web images. This generally is a simple matter of scaling down pictures and grab to a suitable level for Web access, with the odd drop shadow thrown in by

PRINTER PROBLEMS

A while after I upgraded my A4000 desktop to Workbench 3.1, I found that I could not print to my HP-540 from any application when the modem (US Robotics Sportster 288 vi) was turned on. As soon as I turn it off, the printer comes to life. In as much as one's parallel and the other's serial, what's the connection?

Gary Goldberg, Gary@ix.netcom.com

That is a very good question, but unfortunately I have no idea. It could be an indication of a hardware problem, but the best advice I can give is do not use the printer and modem at the same time.

acas

Do you have a problem? Do you sometimes find yourself poised over your Amiga with axe in hand, spouting profanity at the stubborn refusal of your software or hardware to behave in the correct manner?

Well, calm down and swap the axe for pen and paper, jot down your problems, along with a description of your Amiga setup, and send it off to Amiga Computing Advice Service, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP. Alternatively you can e-mail us at ACAS@acomp.demon.co.uk

MAGNUM A1200 Expansion Cards

FREE OPUS 4.12 WORTH £50

FREE SOCCER MOUSE WORTH £19.99 WHILE STOCKS LAST





MAGNUM RAM8 CARD

Speed Increase of 2.3 times - 2.88mips • Available with 0, 2, 4 or 8MB of 32-Bit RAM installed • Uses Standard 72-pin SIMMs • Optional PLCC Type FPU (Floating Point Unit) • Battery Backed Clock/Calender • Finger CutOut to help Installation • Trapdoor Fitting - doesn't void warranty • 0-4MB - PCMCIA compatible (for use with Overdrive, Squirrel etc.) • Zero Waite State Design.

MAGNUM 68030/68040 & 68060 CARDS

Speed Increase of up to 27 times • 68030/40 or 60 Processor running at 33/40 or 50MHz (NEW Processor Chip - NOT Overclocked) • MMU in ALL Processors • '040 fits Standard A1200 - no problem & is supplied with a Heatsink & Fan • Up to 32MB of RAM can be added • Kickstart ReMapping • Optional SCSI-II interface • Can accommodate a 72-pin industry standard SIMM • 68040/60 have built-in FPU, 68030 card has optional PLCC/PGA type FPU (Floating Point Unit) • Battery Backed Clock/Calender • Trapdoor Fitting - doesn't void warranty • PCMCIA compatible so you can still use products such as OverDrive HD or CD/Zappo CD-ROM or Squirrel • Zero Waite State Design.

LOWEST EVER PRICES! FREE UK DELIVERY

	0MB	4MB	8MB	16MB	32MB
RAM8	£39.99	£69.99	£89.99	N/A	N/A
RAM8 & 33MHz FPU	£59.99	£89.99	£109.99	N/A	N/A
68030/33MHz & FPU	£89.99	£119.99	£139.99	£179.99	£249.99
68030/40MHz	£109.99	£139.99	£159.99	£199.99	£269.99
68030/40MHz & FPU	£129.99	£159.99	£179.99	£219.99	£289.99
68030/50MHz	£129.99	£159.99	£179.99	£219.99	£289.99
68040/25MHz (inc. FPU)	£199.99	£229.99	£249.99	£289.99	£359.99
68040/40MHz (inc. FPU)	£269.99	£299.99	£319.99	£359.99	£429.99
68060/50MHz (inc. FPU)	£399.99	£429.99	£449.99	£489.99	£559.99

SCSI-II Interface for the Magnum 68030/68040 & 68060 Cards - Supplied with software - £79.99

PowerBox 250w Amiga Power Supply

NEW

Power-Up your Amiga with this 250w Enhanced Amiga PSU for little more than the price of a normal 25-30w Amiga PSU! Designed for A500/600 & 1200. Encased in Steel Subsystem, All Cables Supplied, Monitor outlet on back of PSU, Only Quality/New PSU's used, 3.5" & 5.25" power cable available to power external CD-ROMs, Hard Disks etc. £49.99

PRO SYSTEM Complete A1200 Hard Disk Kits

FREE OPUS 4.12 WORTH £50

Yes, at long last, a professional way to install a high capacity hard disk without cardboard & glue! Our packs offer you our exclusive and copyrighted Brack-It 1200 Fitting System & a choice of high speed/low cost hard disks.

3 YEAR WARRANTY

BRACK-IT 1200 FITTING SYSTEM

Designed to accommodate the newer drives on the market offering high capacity & speed at great prices. Our pack includes robust steel fitting brackets, all cables for power and data, instructions & 7 disks FULL of HOT software such as Directory Opus 4.12 (worth £50), MUI 3, MCP, Galaga AGA, Virus Checker, Mods, ReOrg, ABackup and MUCH MORE. All software can be installed with our custom click 'n' go system. All drives are pre-installed with the system software & above disks - unlike others we provide the disks just in case!

FREE UK DELIVERY

1.0GB £149.99

1.2GB £169.99

Includes Brack-It System (norm. £35) & UK Delivery

PC TASK 4.0 Advanced 486 PC Software Emulator



NEW

At last, the long awaited PC Task 4.0 is now shipping featuring:- Advanced 486 software only emulation, Dynamic Compilation for faster emulation, up to 16MB accessible under MS-DOS, MDA, CGA, EGA, VGA & SVGA supported, up to 256 colours on AGA machines, CyberGraphics support, Multiple hard disk files and partition supported, CD-ROM and High Density drives supported, Run MS-DOS applications in a windows on your Workbench! Run Windows 3.1 in Enhanced mode! Many times quicker than version 3.1!

Requires Kickstart 2.0 and a 68020 processor or better.

CALL ABOUT UPGRADES £69.99

TURBOPRINT 5 Printer Enhancement Software

NEW

If you have a printer - you MUST get TurboPrint. It radically enhances the printouts you normally get by replacing the Amiga Printer System with the faster and visibly better TurboPrint System. Options include Poster Printing, Colour Correction, Dithering, Colour Balancing, On-Screen Preview and Much More... Most printers are supported - call to check. STOP PRESS - Version 5 now includes "Graphics Publisher" to load multiple pictures, individual colour correct, rotate, twist and more. Enhanced TrueMatch colour correction, New drivers for HP, Cannon & Citizen models.



£49.99 CALL ABOUT UPGRADES

REPAIRS by Qualified Technicians

PRICES INCLUDE COLLECTION & DELIVERY

- All Amiga Computers Covered
- Prices from as little as £29.99
- Many repairs by Wizard require NO Parts
- Prices include Insured Courier Collection & Delivery, Labour, Full Diagnostics, Service, Soak Test & VAT.
- Fast Turnaround
- All Technicians are Fully Trained & Qualified
- Upgrades bought at same time fitted FREE!
- 90 days Warranty on all Repairs

All for just £29.99 + Parts

OTHER PRODUCTS

A500 512k RAM Expansion £14.99

A500plus 1MB RAM Expan. £19.99

A600 1MB RAM Expansion £19.99

All with a FREE Opus 4 worth £50

4MB 72-pin SIMM £30

8MB 72-pin SIMM £50

16MB 72-pin SIMM £90

32MB 72-pin SIMM £160

All SIMMs are NEW and have a 1yr Warranty

EASYLEDGERS 2

The ONLY full accounts package, Ledger based accounts system, Amiga Format Gold. **CALL ABOUT TRIAL OFFER** Hard Disk & 2MB RAM Required £119.99

33MHZ FPU KIT

PLCC type FPU & Crystal - will fit most cards - call to confirm. £29.99

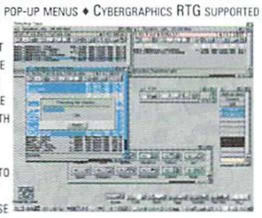
DISKS

50 Disks & Colour Labels £14.99

100 Disks & Colour Labels £24.99

DIRECTORY OPUS 5 WORKBENCH REPLACEMENT & FILE MANAGEMENT SYSTEM

The BEST just got BETTER! After 12 months of further development Opus 5.5 is now ready and shipping. Stunning new features include:- • Icon Action Mode • Workbench Replacement Mode dramatically enhanced • OpusFTP capability to access Internet FTP sites with a lister • Borderless Button banks • Filetype-specific pop-up menus • Cybergraphics RTG supported • Independent HotKeys • Script system to execute commands upon events • Multiple custom menus with sub items • Automatic Filetype Creator to create and test Filetypes with ease • A font viewer • Listers fields for titles, re-sorting by fields, plus a 'version' field • Colour re-mapping of button/icon images with support for 'Magic Workbench' etc. • Selectively hide unwanted drive icons • Clipboard support for cut, copy and paste in gadgets & listers • Resize, Iconify, and scroll busy listers while busy • Icon and lister snapshots are stored separately from Workbench - so you could snapshot your CD-ROM icons! • Listers can now display a background picture/pattern • Internal Opus CLI to quickly test commands & ARexx scripts • Many new internal commands and many new ARexx commands have been added or extended with new features. You can now even add your own internal commands!

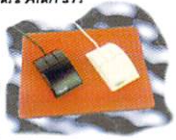


VERSION 5.5 £49.99

Workbench 2+ & Hard Disk Required

560DPI 3 BUTTON MICE & MATS for all Amigas & Atari STs

FREE THIRD BUTTON DRIVER DISK



Award winning 560dpi Resolution • 90% rating in CU Amiga

- Micro Switched Buttons
- Amiga/Atari ST Switchable
- All 3 buttons can be used with many programs such as Directory Opus 5

BEIGE or BLACK £12.99

MAT £2.99 or £1 with a mouse

GP FAX Fax Software Solution for all Amigas with a Modem

Send faxes to and from your Amiga. Even fax directly from your application. Amiga Format Gold. Amiga Computing 9/10. Fax Compatible Modem Required £44.99

IMAGE FX 2.6 The Complete Image Processing Solution for all Amigas

The BEST Image Processing Package there is for the Amiga. Amiga Format Gold - CU Awards. Bubble Filter, Fire FX, Wireless Hooks, Shear & Straw modes, Enhanced Lightning Effects, FilmGrain Add/Remove, Liquid Distortion, Sponge Drawmode, Sparkle Effect & much more are in version 2.6.



2MB & Hard Disk Required £179.99

BSB Books & Videos

Insider Guide - A1200	£14.95
Insider Guide - A1200 Next Steps	£14.95
Insider Guide - Assembler	£14.95
Insider Guide - Disks & Drives	£14.95
Insider Guide - Workbench 3 A to Z	£14.95
Total! Amiga - Workbench 3	£19.99
Total! Amiga - AmigaDOS	£21.99
Total! Amiga - ARexx NEW	£21.99
Total! Amiga - Assembler	£24.99
Mastering Amiga Scripts	£19.95
Mastering Amiga Beginners	£19.95
Mastering Amiga Printers	£19.95
Mastering AmigaDOS 3 - Reference	£21.95
Mastering Programming Secrets	£21.95
UK Comms/Internet **** STAR BUY ****	£14.95
AmigaDOS Pack - Total! Amiga - AmigaDOS & Mastering AmigaDOS 3 - Reference Usually £43.94 - SAVE NEARLY £9	£34.99
A1200 Beginner Pack - 2 books (Insider A1200 & Next Steps), a 60 Minute Video, 4 disks of PD to go with the books/videos	£39.95
A1200 Workbench 3 Booster Pack - 2 books (Disks & Drives & Workbench 3 A to Z), a 90 minute Video, 1 disk & Reference Card	£39.95

QUARTERBACK DISK SUITE Quarterback 6.1 & Quarterback Tools Deluxe

The Classic QuarterBack 6.1 and QuarterBack Tools Deluxe are back on sale. Considered by most as *the* disk backup and disk recovery programs we have available the two packages combined at an unbelievable price (normally £79.99). Disk backup, Disk Recovery & Optimisation are two key tasks that just shouldn't be left to inferior PD alternatives. Get the Best Get the QuarterBack Disk Suite. £34.99

SATURN External 1Mb Floppy Drive for all Amigas

FREE OPUS 4.12 WORTH £50

FREE 3 GAMES WHILE STOCKS LAST



Compatible with ALL Amigas • High Quality SONY Drive • Robust Metal Case • Anti-Click as Standard • Enable/Disable Switch • Low Power Consumption • Thru Port for Extra Drives £39.99

Or £49.99 with PowerCopy Pro 3 - The BEST Backup System

WIZARD DEVELOPMENTS

FREE UK DELIVERY

ORDER HOTLINE **01322-527800** OR FAX 01322-527810

CONTACT US ON INTERNET SALES@WIZARD-D.DEMON.CO.UK

BETWEEN 9AM AND 5.30PM, MONDAY TO SATURDAY, TO PAY BY CREDIT CARD. TO PAY BY CHEQUE OR POSTAL ORDER PLEASE SEND YOUR ORDER TO - WIZARD DEVELOPMENTS, PO BOX 490, DARTFORD, KENT, DA1 2UH

Cheques should be made payable to WIZARD DEVELOPMENTS. Prices include VAT & carriage to the UK mainland. Please add £5 to your order for EC destinations and £10 for other countries. All products are subject to availability. E&OE. Advertised prices & specification may change without notice. All sales are subject to our trading conditions - copy available on request.

ENTERPRISE DeskTop Workstations for all Amigas



Single Workstation 507 x 95 x 315mm ~~£29.99~~ £24.99

Double Workstation 507 x 155 x 315mm ~~£34.99~~ £29.99

Wide Workstation 665 x 95 x 315mm ~~£34.99~~ £29.99

All Sizes are W x H x D

£5 OFF FOR A LIMITED PERIOD

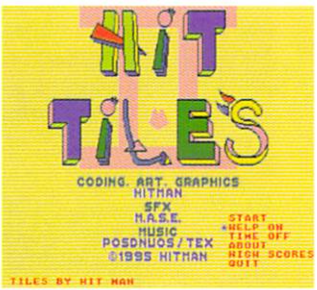
public sector

Dave Cusick's got a mate who eats cold beans from the tin, so there

Once again, Public Sector has been rather peppered with PD offerings this month, so Perfect PeeDee Past must quietly wait in the wings while the creme de la creme de Mai take centre stage. Rest assured, it will be back next month, as Public Sector triumphantly returns to its once customary four page format. In all probability next month will also see the debut of the Public Sector Reader's Submissions section, with a lucky reader winning some miscellaneous gubbins from the Amiga Computing cupboard. Until then, dear readers, please sup heartily from this month's helping of PD perfection...

Hit Tiles 2

Programmed by: Luca Ciccotelli
Available from: Classic Amiga Software
Disk No: G452



there are plenty of options to play around with

There are certain frequently recurring themes in the world of PD games. Arcade clones, age-old classics like Minerunner and puzzle games like Tetris and Solitaire have been remade countless times. Over the years there have also been plenty of versions of Shanghai, a well known oriental game. The latest, Hit Tiles 2, is among the better ones.

There are 15 levels, each consisting of a screen containing 120 tiles stacked in piles of up to four. The tiles feature designs, with four tiles bearing each design. The objective is to remove all the tiles, but they can only be removed in pairs and a tile can only be removed if there is a blank space on either the left or the right side. There is a time limit, which can be toggled on or off depending on how challenging you would like each level to be.

Hit Tiles looks attractive, boasts better music than the majority of puzzlers, and even comes with a special program called Iff2Tile which allows you to design screenfuls of tile designs using up to 32 colours, which can then be imported into the game. It is a challenging, cerebral game thoroughly worthy of investigation.



Hit Tiles is a competent version of Shanghai...

Burton Bird

Programmed by: Matthew West
Available from: 5th Dimension Licenceware

Burton Bird has received something of a warm reception amongst the Amiga community. One magazine gave it their monthly Reader's Game Award, whilst another felt it warranted 95 per cent. It is certainly true that I have seen a lot worse during my tenure in the Public Sector cupboard (shoebox - ED) and, at £3.95 plus 50p P&P, it would have to be pretty terrible not to represent reasonable value for money, but in my book for a game to score 95 per cent it has to be only a whisker short of perfection. Burton Bird is good, but not that good.

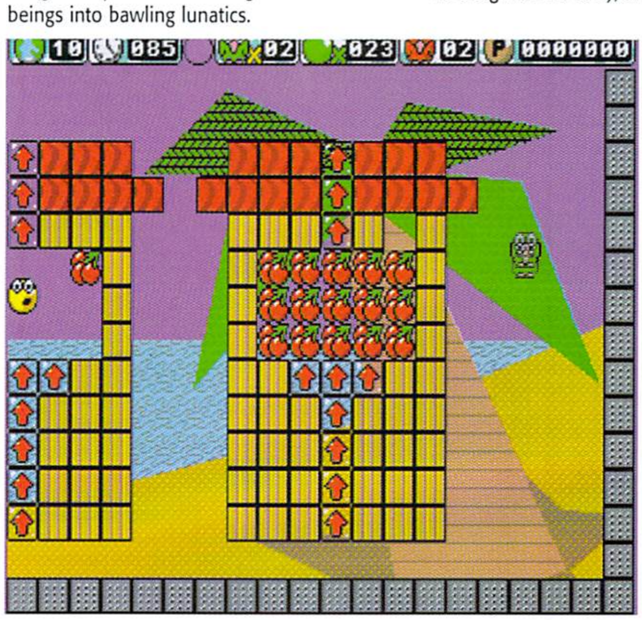
The fundamental problem I have with wholeheartedly recommending this perfectly playable platformer is that the control mechanism, deliberately made fiddly in an attempt to incorporate aspects of Breakout into what might otherwise have been a distinctly average runny-jumpy outing, rather succeeds in shooting itself in the foot. Burton's task is to collect all the fruit scattered around each of 87 levels within an extremely strict time limit. Some of the fruit is, however, tricky to reach and when Burton plummets for the fifth time through a one-way door whilst attempting to leap towards a pesky bunch of berries, an otherwise appealing platformer can come dangerously close to turning rational human beings into bawling lunatics.



Burton Bird: Lovely to look at...

Not being a fan of frustrating games at the best of times, within five minutes of loading Burton Bird I had travelled beyond the oh-so-impressed stage and was rapidly approaching the smashing-my-joypad stage. Eager to avoid damaging expensive computer hardware I toddled off for a cuppa and a biscuit and returned refreshed, only to find that within 10 minutes I was wailing expletives and seriously considering throwing heavy objects at my poor Amiga. In terms of the frustration it can produce, Burton Bird must rank alongside trying to thread cotton through a needle and watching Andy Cole play at Old Trafford.

It does have attractive graphics and passable sound effects (although the music is nothing short of dire), and with so much platform "fun" to offer then Burton Bird will no doubt make happy bunnies out of a fair few action-starved gamers. However, unless you have the patience of a saint, I would strongly advise padding the walls and removing any non-fluffy objects from the immediate vicinity before putting Burton Bird anywhere near your drive.



...but too frustrating for me

Dark Citadel

Programmed by: Rob Massey
Available from: F1 Licenceware
Disk No: F1-151

Heavily influenced, if not directly inspired, by Valhalla-style role playing games, Dark Citadel is one of the best licenceware games to appear in a long time.



Ysadora might have been a lovely girl, but she had some bad habits

As with so many role playing masterpieces, Dark Citadel is set in a distant and magical past. While in this day and age a chap might win the affections of a lass by wining and dining her or taking her to the pictures, in fantastical days of yore courting would be a rather more demanding process. Typically a bloke might have to release the object of his desires from a spell cast by an evil wizard with an unpronounceable name, thereby winning her eternal gratitude and often (if her father was suitably impressed too) her hand in marriage.

Thus the player here assumes the role of the dashing but presumably desperate knight Marlon, who must enter the titular Citadel to procure an elixir with which he can free the delectable young maiden Ysadora from the malevolent Gnaxar's spell. Formulaic it might be, but this suitably exciting storyline is a passable enough excuse for some top-drawer adventure gaming.



Dark Citadel presents a gripping challenge to role players

Dark Citadel is immaculately presented and features some nicely drawn graphics. Without a doubt though, the single most impressive aspect of the game from a technical standpoint is the wonderful sampled speech, utilised beautifully as a means of having the on-screen hero give the player feedback. Through the intuitive joystick-driven interface there are plenty of puzzles to be solved, some of which are fiendish but none of which are unfair or hopelessly obscure.

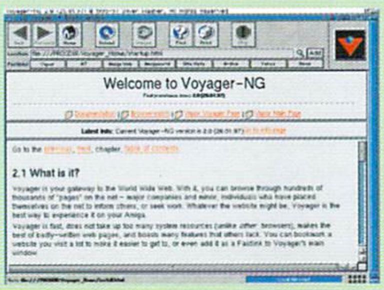
Engrossing, challenging and professionally presented, Dark Citadel is absolutely unmissable. It costs £6.99 plus P&P but offers a great deal more entertainment than many commercial offerings. A megabyte of chip memory is essential and a hard drive is definitely recommended.

Magic User Interface v3.7

Programmed by: Stefan Stuntz
Available from: Classic Amiga Software
Disk Nos: UT158 A/B

When, in issue 108, Public Sector looked at v3.6 of what has become the single most essential Shareware program in the history of the Amiga, I described MUI as "a force which has helped galvanise the Amiga community in the face of fierce competition from first consoles and now PC contemptibles." The only reservations I expressed in an otherwise worshipful review were with regard to stability, an aspect in which MUI, in my personal experience at least, had deteriorated since the long-reigning v3.3.

Fortunately, v3.7 seems to have successfully addressed numerous bugs in the Magic User Interface libraries. Not only have various problems with 68060 processors been rectified, but a whole string of technical problems have been dealt with to ensure that programmers in particular, and users to only a marginally lesser extent, will want to update their MUI installation as soon as possible.



Magic User Interface is of course Shareware, and if in your entire lifetime you only ever register a single program that program ought to be Magic User Interface. If the slick registration program (which has been visibly enhanced over the last few MUI releases) does not succeed in convincing you to register, consider that the £15 UK registration fee is a nominal amount to be sending to an individual whose efforts have gone a considerable way towards keeping the Amiga alive this long.



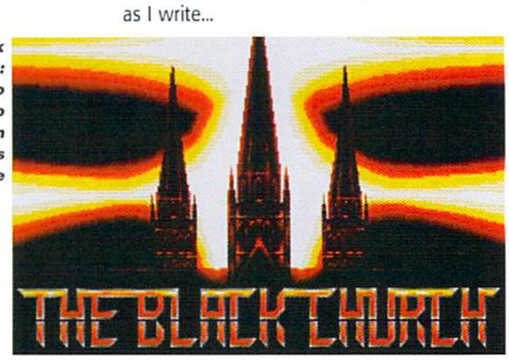
The Black Church

Produced by: Ben Wright
Available from: Roberta Smith DTP
Disk Nos: SM818 A/B

I have ranted at length in these pages before now about dark guitar music. With two good friends having recently rediscovered their Black Sabbath record collections, I have been subjected to a higher dosage of dark guitar music than I would normally consider to be safe. Fortunately no ill effects have yet resulted - I've not rushed out and murdered any close relatives or taken any evil drugs (other than those I would have taken anyway). I'm still not keen on the vast majority of metal-esque Rawk (says he in his best Tommy Vance voice).

The Black Church contains eight atmospheric Med modules, all composed using similar guitar samples and none of which really offers anything out of the ordinary. As such they will appeal to fans of the genre, but won't do anything for anyone else at all - although give me any of these over the tedious Eternal tat that's playing on the radio as I write...

The Black Church: More to listen to than there is to see



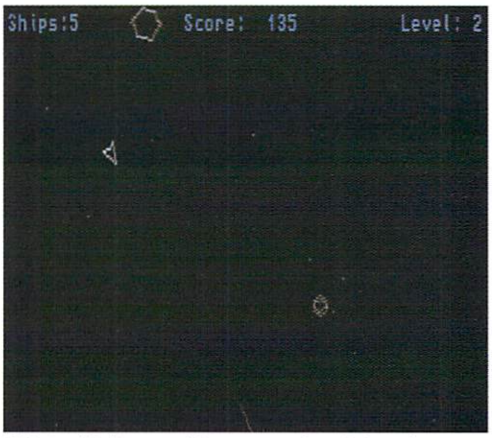
WBsteroids

Programmed by: Heiko Muller
Available from: Aminet

Asteroids was always one of my favourite arcade machines. In recent years, arcades have become full of fancy, expensive, graphically superb games without any genuine addictive qualities, but in days of old, machines such as Asteroids changed lives. Many young innocents who, until entering an arcade one evening, might never have looked at a monitor again, were drawn in by mesmerising video games such as Atari's Asteroids.

Featuring charming simple monochromatic graphics coupled with some of the most fiendishly captivating gameplay ever conceived, Asteroids was one of the all-time classics. Consequently numerous programmers have attempted to bring the same magic to home computer users - on the Amiga, perhaps most noticeably in the visually stunning Super Stardust, which only failed to grab the imagination of the masses thanks to its discouragingly high difficulty level.

WBsteroids offers the possibility of playing a perfect



WBsteroids is a cracking conversion of the coin-op...



...and the keys are even configurable

Asteroids clone on your Workbench screen. The vector graphics are as smooth as silk even on a standard A1200, the sampled sound effects are superb and there is even a charming Deutschlander periodically chirping "Asterweeds".

Your craft is controlled using the cursor keys, with down engaging your Hyperspace drive, and you can fire bullets by hitting the space bar. If the standard keys do not suit, it is possible to redefine them by pressing Help. If you are competent enough you might manage to earn yourself a place on the obligatory high-score table.

The WBsteroids window is scalable, so you can shrink or enlarge the screen to suit your personal preferences. Unfortunately, once the game is running it is not really possible to start flicking between screens because WBsteroids will seize control of things to the extent that other screens will freeze until you press Escape to kill WBsteroids off. However, this is the only criticism that can really be levelled at what is, in all other respects, a superb version of a truly great game.

You'll Never Walk Alone

5th Dimension Licenceware
1 Lower Mill Close
Goldthorpe
Rotherham
South Yorkshire S63 9BY
Tel: 01709 888127
E-mail: Phil@ware5d.demon.co.uk

F1 Licenceware
31 Wellington Road
Exeter
Devon EX2 9DU
Tel: 01392 493580
E-mail: steve@f1lw.demon.co.uk

Classic Amiga Software
11 Deansgate
Radcliffe
Manchester M26 9YJ
Tel: 0161 723 1638

Roberta Smith DTP
190 Falloden Way
Hampstead Garden Suburb
London NW11 6JE
Tel: 0181 455 1626

Jose M Munoz Bou
Aviador Franco 6
12540 Villarreal
Castellon
Spain

CCI #5

Produced by: Jose M Munoz
Available from: Jose M Munoz

It's been a while since I have covered a diskmag in these pages - principally because the vast majority of them are either aimed at enthusiasts (especially of the Amos and Blitz BASIC languages) or are simply too unexceptional to warrant coverage. However since CCI (which stands for Custom Chip International) was new to Public Sector and the standard of presentation and broadness of coverage was refreshing, I thought it high time to rectify the situation.



CCI: A readable enough diskmag

Although CCI has plenty of spelling mistakes and grammatical errors, these are forgivable considering the diskmag is put together in Spain - the producer's English is infinitely superior to my Spanish. Like so many other diskmags, CCI is written in Amos, and the result is an easily navigable menu system leading to an array of tidily arranged articles embracing a wide range of subjects - articles in this issue covering everything from hardware and software reviews to information on constructing your own audio and video digitisers. There are also a couple of minor competitions and a small gallery section.

Whilst diskmags cannot really hope to compete with mainstream publications (or indeed the Internet) as sources of up-to-date Amiga information, they do still play an important role. They allow enthusiasts to communicate with one another, thanks to their open submissions policy and the ease with which they can be disseminated throughout the Amiga community. They also tend to offer more stories of personal experiences, which can prove both interesting and informative to other users. CCI fulfils all of these functions fairly admirably and is available for £1 from the address below.

Ho Hum

Each month Public Sector tries to bring you the very best of the latest PD and shareware releases. Consequently I want to hear from you if you have any program, whatever its purpose, which you consider worthy of review. Whether it will be freely distributable Public Domain, Shareware or Licenceware, if you feel it is of sufficient quality to merit coverage then cram it onto a 3.5", slap it into a jiffy bag with a cover letter and wang it with all haste in my general direction. Some days later when said jiffy tumbles gently through my letterbox, I'll tear open the envelope, shove it in my drive and don my evaluating cap, with the creme de la submissions earning reviews in these pages.

If you've written the software yourself, you could even win yourself a prize if it earns a review. Reader Submissions of this kind should, surprisingly enough, be clearly labelled "Reader Submission", and they should be sent to the usual Public Sector address. So don't delay - get those submissions in the post before Neil changes his mind about those prizes...

Dave Cusick
PD submissions
Amiga Computing, Media House,
Adlington Park,
Macclesfield SK10 4NP

Want to get connected?

- ...AMITCP v4.5 DIALUP *[NEW!! FULL TCP CLIENT]*
- ...VOYAGER-NG v2.1 NEW *[EXCLUSIVE!! NEW WWW CLIENT]*
- ...MICRODOT-II NEW *[AMAZING NEW MAIL/NEWS CLIENT]*
- ...AmFTP *[INDUSTRY STANDARD FTP CLIENT]*
- ...AmIRC *[INDUSTRY STANDARD IRC CLIENT]*
- ...AmTelnet NEW *[TELNET CLIENT - AMFTP AUTHOR!]*
- ...AmTalk NEW *[INTERNET CHAT CLIENT]*
- ...AmFinger NEW *[FINGER CLIENT]*
- ...AmTerm NEW *[NEW COMMS/BBS CLIENT]*

& MUI 3.8 (Shareware)

STOP PRESS!!

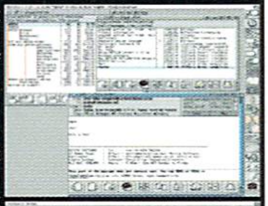
Voyager Supports FRAMES!



New for Voyager-NG v2.1

HTML 3.2 specifications - tables and full frames (scrolling and floating as shown) now supported! **Internal Image Decoder** - fast internal GIF/JPG decoding, GIF Anims, 24BIT CyberGFX support! **Graphical Printing** - print web pages as they are shown! **Enhanced Features** - POP-UP menus, MIME GUI, extra security, FULL FTP module and much more!







COMPLETE Internet Software

Wanting to get onto the Internet? Already connected, but frustrated with your software? NetConnect is all you need to get connected to the Internet and contains a suite of seven **commercially licensed** Internet applications. You won't find an interface as easy-to-use as NetConnect's! We have spoken at length to so many of our customers about getting onto the Internet - we know exactly what you need and what you want. You want software you can use - not shareware but commercial software, you want the hassle taken out of the installation and you want a suite of the very best Amiga Internet software. Indeed, to make NetConnect the very best we organised programmers to enhance their software - so you get previously non-released software. NetConnect contains a full TCP client worth over £35 in itself! You can save masses of £££'s from buying NetConnect as there is no need to licence the Internet software - full versions all licenced for you! Remember you are also entitled to minor upgrades/fixes as a registered user!!

Buy Your Vaporware Products Direct From Active!



NETCONNECT AND VAPORWARE PRICES

NetConnect CD Version or 3.5" Floppy Disks	£ 59.95
33.6 Voice Modem	£109.95
33.6 Non-Voice Modem	£ 99.95
33.6 Voice Modem & NetConnect	£139.95
Voyager Next Generation (v2.10)	£ 20.00
Microdot-II (call for release date and to confirm price)	£ 20.00
AmIRC v1.32	£ 19.00
AmFTP v1.72	£ 19.00
AmTalk v1.2	£ 12.00
AmTelnet v1.0 + AmTerm v1.0	£ 18.00
MUI 3.8 (when you buy Vapor products or NetConnect)	£ 12.00

- *5% Discount when 2-4 Vapor products are bought, 10% Discount for 5+*
- *Note that the Vaporware products are e-mail only but can be sent on floppy for a surcharge of £2.00 per product.*

Quality 33.6 Voice and Non-Voice Data/Fax Modems



- 33600 bps DATA/FAX modem - true v34. Throughput to 115, 200 BPS via V.42 bis data compression
- Group 1, 2 & 3 send/receive FAX (14.4)
- Voice CommandsDSVD upgradeable (by software) *voice only
- Auto Answer *voice only
- Full Duplex Speaker *voice only
- Call Discrimination *voice only
- Fax on demand *voice only
- Simultaneous voice and data (S.V.D.) *voice only
- Message playback via sound card / speaker or headset *voice only
- Auto mode detection allows modem to connect with a modem that is configured for differing connection modes
- Extended AT command set
- Upgradable ROM chip (safeguarding against future specifications)
- BT and CE Approved
- Amiga 25pin and Surf Squirrel/PC 9pin serial cable included
- With Headphones and Microphone *voice only
- Full "get started" documentation
- 5 year warranty - also undergone rigorous Amiga tests

Save over £23 with Enterprise!

Buy NetConnect and get FREE connection to Enterprise (worth £20 ex. VAT or £23.80 inc. VAT)!

Send your order to:
Active Software, PO Box 151, Darlington, County Durham, DL3 8YT, ENGLAND.
01325 352260
active@enterprise.net

DELTA · MasterCard · Access · VISA · SWITCH

Postage and Delivery

CD's	- 50p per CD for UK delivery - £1 per CD for EU delivery - £2 per CD World delivery
Modem	- £3 for 2-3 day delivery - £4 for next day delivery - £15 for Saturday delivery

Make cheques/P.O.'s payable to Active Software and send to the address listed opposite. We can accept credit or debit card orders. For any additional information call us ASAP!

Supported by ISP's Worldwide

NetConnect allows you to select your country then select an ISP (easy!) - we have about 160 ISP's listed from 29 different countries (58 from the UK!). Nearly 100% of the WORLD is covered for any user who wants to connect to the Internet!

UNDERGROUND P.D.

FREE GAMES CHEATS · **FREE** 1.4 EMULATOR · ON ALL ORDERS · **FREE** LIBRARY DISK · **FREE** POST & PACK · ON ALL ORDERS

PLATFORM GAMES
- 1330 CAPTAIN BONUS
- 1233 ROACH MOTEL
- 1445 10 C.W. GAMES
- 1553 LANCE-O-LOT
- 1462 CHARLIE COOL
- 1712 DITHELL & MUCUS
- 1701 ITS HIDEOUS
- 1684 THE BIRDIES
- 1819 A12 DANGER DOG
- 1878 JUMPMAN DELUXE

SPACE BLASTERS
- 911 SOLO ASSAULT
- 906 OBLITERATOR
- 498 THE LAST REFUGE
- 1434 SPACE BLASTER
- 1473 EXENEX A/ROIDS
- 1706 THE ASTRO KID
- 1789 MEGA TYPHOON
- 1855 A12 SPEEDBREAK
- 1885 BLASTED
- 1904 CREEPY CRAWLIE
- 1921 WITNESS

ARCADE GAMES
- 555 HUGO V2.5 DISK
- 273 KELLOGS EXPRESS
- 1368 ALIENS F.F.
- 1338 STRIKE COMMAND
- 1500 U.P.D. 24 GAMES
- 1880 A12 SLIPSTREAM
- 1908 A12 FLY TIGERS

P.D. VERSIONS
- 025 HUNTER PLUS
- 815 LEMMINGS PACK
- 023 RICK DANGEROUS
- 1457 TI-FIGHTER
- 022 THE GODS
- 026 ROBOCOP V2
- 1703 S.W.O.S. EARTH
- 1702 S.W.O.S. MOON
- 1778 PINBALL FANTASY

COMBAT GAMES
- 941 FATAL BLOWS
- 938 MARTIAL SPIRIT
- 290 FIGHT WARRIORS
- 1238 WEAPON MASTER
- 1428 CYBERGAMES 3DSK
- 1548 FIGHT A1200
- 1720 A1200 SAMURI

CLASSIC GAMES
- 011 ASTEROIDS
- 693 MISSILE COMMAND
- 778 OVERLANDER
- 692 SPACE INVADERS
- 841 COOKIE
- 308 DONKEY KONG

DRIVING GAMES
- 951 FLAMING ENGINES
- 1469 THE ROAD TO HELL
- 1417 MANG FENDERS V2
- 1466 A12 KNOCK OUT
- 1642 A1200 EX RACING
- 1705 A12 AER RACERS
- 1893 BOSSCAR
- 074 F1 EDITOR 96/7

SIMULATORS
- 332 SEALANCE-SUB
- 333 BATTLE CARS V2
- 926 HELICOPTER
- 1273 A12 TRAIN DRIVER

SPORTS GAMES
- 1014 CRAZY GOLF
- 630 TEN PIN BOWLING
- 1171 2 DSK CRS-ANGLER
- 1373 ICE HOCKEY
- 1317 A12 GON FISH'N
- 1465 A12 2 DISK TENNIS
- 1251 TOUR TENNIS
- 1630 INTER CRICKET
- 1700 GOLF 9 HOLES

HINTS & CHEATS
- 418 1000 CHEATS
- 931 BACKDOOR V3
- 821 PASSWORD MANIA
- 813 GAME TAMER V4.5
- 820 MEGA CHEATS
- 681 SIERRA SOLUTIONS
- 1118 UP TO DATE V1
- 1358 GAME SOLUTIONS
- 1653 SOLUTIONS V3
- 1651 SOLVES 6 DISK

OVER 18 GAMES
- 1307 TERRORLINER V3
- 997 2DSK ADVENT V1
- 1001 2DSK ADVENT V2
- 101 TERROR LINER V1
- 1081 ADULT TETRIS
- 1248 STRIP POKER
- 1145 A12 NUMBERS V1
- 1335 ADULT DROIDS
- 1533 DRAGONS BALL
- 1517 ADULT BOMBER
- 1643 TERROR LINER V4
- 1654 LEGO BREAKOUT
- 1768 4 DSK A12 ADVENT
- 1906 BLIND DATE

TETRIS - COLUMNS
- 294 KLACK-TRIS COLMS
- 107 TWIN-TRIS TETRIS
- 293 DR-MARIO COLMS
- 1602 SUPER FOUL EGG
- 1627 PILL-MANIA
- 1866 WALL STONES
- 1919 VANILLA TETRIS

PAC-MAN GAMES
- 1096 PUC-MAN
- 1138 A12 CYBER MAN
- 1346 WABES PAC MAN
- 1648 A12 BOBS LEMON
- 230 SUPER PAC MAN

BREAK-OUT & PONG
- 003 MEGABALL V1
- 459 MEGABALL V2
- 1459 CYBERSPHERE
- 559 MEGABALL V3
- 1704 BORIS BALL
- 1853 DOUBLE BATTLE
- 1924 OUTSIDE BREAK

BOULDERDASH GAMES
- 1527 ICE MINE PRO
- 1595 NEW MINES
- 1569 BUG MINES
- 1572 UNDER MINES
- 1573 GOLD MINES
- 1577 EMERALD HEAD
- 1580 EXPERT MINES
- 1582 DENMARK MINES
- 1583 STYX MINES
- 1892 SPACE MINES

PUB-CLUB GAMES
- 1304 CHECKERS V2
- 222 FRUIT MACHINE
- 375 CARDS SOLITAIRE
- 1246 AMIGA CRIBBAGE
- 1362 PUB DARTS TOUR
- 560 WORLD DARTS
- 1450 SAT SNOOKER
- 1112 A1200 X CARDS

BOARD GAMES
- 910 NEW MONOPOLY STAT
- 631 SCRABBLE
- 476 CHESS GAMES
- 1433 LIFTS & LADDERS

ADVENTURE GAMES
- 116 STAR TREK 2 DISK
- 297 NEIGHBOURS 2 DISK
- 1503 4DSK A.N.G.S.T.
- 1711 A12 INGENIOUS
- 1671 BREED 1996
- 1753 A1200 GLOOM
- 1894 TIME RUNNER V2
- 1925 DUNGEONS

STRATEGY GAMES
- 876 GLOBAL NUKE WAR
- 826 IND-ESPIONAGE
- 1182 A12 NIGHTMARE
- 1170 A12 LORDS 2 DSK
- 1431 UFO UNCLOTHED
- 1547 SOLO STAR-TREK
- 1623 FLEET 2-MEG

PUZZLER GAMES
- 953 CHANEQUE 2 DISK
- 1135 SPRING TIME
- 1211 AMIGA GEMZ
- 859 10 PUZZLERS
- 1550 PUZZLE PITS
- 1546 EXPERT BALLS
- 1633 THE WOOGLIES
- 1765 BRAIN BALLS
- 1764 BRIDGE BALLS

MANAGER GAMES
- 876 SCOTTISH LEAGUE
- 321 AIRPORT
- 443 SLAM BALL
- 817 BLOOD BALL
- 1429 ULTI MANAGER
- 1699 PREMIER PICS
- 1763 AIR TRAFFIC
- 1771 MICRO MART 3

QUIZ GAMES
- 1031 TREK TRIV 5 DISK
- 716 POP MUSIC QUIZ
- 309 THE QUIZ MASTER
- 462 WHEEL OF FORTUNE
- 1597 QUIZ 555
- 1683 HOLLYWOOD TRIV
- 1670 A12 DEATH ROW

LOGIC GAMES
- 1037 MARBLES GAME
- 1035 ATOMIC GAME
- 119 DRAGON'S TITLES
- 112 DRAGON'S CAVE
- 369 BOOM'IN ECK!
- 1477 BOMB MANIACS
- 1476 MARBEL-LOUS
- 1687 TILE MANIA
- 1922 LOGICS

AMIGA LEISURE
- 205 AMIGA PUNTER
- 228 PERM CHECKER
- 1210 LOTTO LUNATIC
- 1438 A-GENE V5
- 1594 LOTTERY SYSTEM
- 1682 THE PHYSICIAN
- 1840 SUFOPIA U.F.O.

A1200 MEGADEMOS
- 1270 DOOM RAVE
- 1220 AMIGA JAMMIN
- 1165 VENTILATOR
- 1414 2 DISK DOVE
- 1415 MYSTIC ILEX
- 1685 DISK JADE
- 1725 DREAM WITH ME
- 1783 FATAL MORGANA

AMIGA MEGADEMOS
- 460 TEKNO RAVE
- 1015 2DSK TAZ QUEEN
- 1120 2DSK TAZ-QUEEN 2
- 1104 2DSK OXYGENE
- 1084 ASCII NOT 1.3
- 1785 TECHNO TRACKS
- 1816 BATMAN 2 DISK

A1200 SLIDE SHOWS
- 740 4 DISK MANGA
- 1271 PIXEL STORMS
- 1193 LEMMINGTONS
- 1646 MISS MANGA
- 1650 STARFLEET 3DSK

AMIGA SLIDE SHOWS
- 704 REVELATIONS
- 061 PAT NAGEL'S GIRLS
- 936 AVIATION HISTORY
- 1060 5DSK LION KING
- 1498 NIGEL MANSELLS
- 1472 YABA DABA DO

ARTWORK PACKAGE
- 063 ULTRAPAINT
- 349 SPECTRA COLOUR
- 748 ILLUSION PAINT
- 1460 A-Z PAINT PAD
- 1565 CARTOON STUDIO
- 1707 PERFECT PAINT
- 1760 JNR PICASSO

ARTWORK PROGRAMS
- 1299 A12 MAGNI-CAD
- 071 GRAPHICS CON KIT
- 070 GRAPHIC UTILS
- 133 FRAC LAND BUILD
- 1026 PICTURE LAB

ANIMATIONS
- 084 PUGGS IN SPACE
- 233 COOL COUGAR
- 651 FAIRLIGHT 242
- 831 RED DWARF
- 475 BAIT MASKING
- 347 NEWTEK V3 2 DISK
- 187 ANIMATION STUDIO
- 1447 2 DISK JAP MANGA
- 1784 BAIL OUT VOL 3

AMIGA VIDEO
- 329 VIDEO INSCRIPT
- 790 VIDEOTRACKER 5 DISK
- 148 S - MOOVIE

MUSIC MAKERS
- 220 FUNK KEYBOARDS
- 431 RAVE KEYBOARDS
- 661 MED WORKSHOP 4DISK
- 202 MED V3.2
- 729 DRUM MACHINE
- 787 SONIC DRUM KIT
- 738 OCTAMED V2
- 136 THE ART OF MED
- 192 THE COMPOSER
- 618 MUSIC DATABASE
- 981 AUDIO ENGINEER
- 1268 HIPPO PLAYER
- 1681 PROTRACKER 3.5
- 1791 OCTATUTOR V5

CLASSIC – POP
- 1029 COTTONEYE SONG
- 201 PIANO CLASSICS
- 234 VIVALDI 2 DISK
- 342 AMIGA-DEUS
- 213 DIGI CONCERT V2
- 620 BAGPIPE MUSIC
- 248 EXPRESSION V2
- 473 RHYTHM'S DANCER
- 1357 2 MEG DACO V1
- 1759 GUITAR BLUES
- 1757 HEAVY METAL
- 1800 TEKNO MAGE 96

SAMPLES – MODS
- 660 KORG 01W 8 DISK
- 647 SOUND FX 3 DISK
- 619 DRUMS 2 DISK
- 1666 URBAN 6 DISK
- 1588 DANCE 5 DISK
- 1258 MOVIE SAMPLES
- 1828 NEW WORMS SFX
- 1861 MONTY PYTHON
- 1850 ANSWER-PHONES

AMIGA EMULATION
- 423 2 DISK SPECTRUM
- 889 PC EM 2 DISK
- 327 ACTION REPLAY
- 955 DOWN TO A500
- 313 UP TO A500 PLUS
- 414 UP TO A1200

DISK COPIERS
- 727 MULTI TASK (MT)
- 158 X.COPY PRO
- 357 COPY AND CRACK
- 325 LOCKPICKER V2
- 1667 COPY & CRACK V2
- 1896 COPY & CRACK V3

HARD DRIVES
- 779 W/B 3 INSTALL
- 780 W/B 2 INSTALL
- 621 H/D STACKER
- 490 8 DISK MAGIC W/B
- 957 GAME INSTALL V2
- 1141 GAME INSTALL V3
- 1199 GAME INSTALL V4
- 1692 A BACKUP V5
- 1674 CD ATAPI
- 1775 2 DISK MUI 3.6
- 1770 2 DSK ERROR TALK

PRINTING
- 243 AWARD MAKER 4DSK
- 065 AMIGA FONT 7 DISK
- 100 PRINTER DRIVERS
- 048 PRINTING STUDIO
- 345 BANNER MAKER
- 057 TEXT ENGINE V4
- 394 INVOICE PRINT
- 749 FORM PRINTER
- 1658 CARD AND LABEL
- 1842 PRINTMASTER

AMIGA BUSINESS
- 832 DATABASES 2 DISK
- 092 ACCOUNT MASTER
- 470 LITTLE OFFICE
- 244 SPREADSHEET
- 535 UK S.T.D. CODES
- 1464 DIARY 2000
- 1368 AMIBASE V4
- 1758 DAILY LIVING

COLOUR CLIP ART
- 637 6 DISK COL/BRUSH
- 633 7 DISK CLIP ART
- 901 9 DISK WORLD MAP

MONO CLIP ART
- 172 15 DISK PORTFOLIO
- 558 7 DISK CLIP ART

AMIGA MODEM
- 702 COMMS TUTORIAL
- 413 N. COMMS V3
- 079 OPTICOMMS V2
- 1032 MAX BBS PROG

PROGRAMMERS
- 288 A-BASIC TUTOR
- 306 UNDERSTAND AMOS
- 722 TONS OF AMOS
- 1067 AGA DATATYPES
- 1691 NORTH C
- 1754 AMIGA DOS FRAU

DO IT YOURSELF
- 239 SLIDESHOW MAKER
- 808 MAKE A DISK
- 242 MENU MAKER
- 1154 HEDLEY GUIDE A12
- 1903 MAKE A DISK V2

VIRUS CONTROL
- 506 A1200 VIRUS
- 160 M.V.K. PLUS
- 1440 Z CHECKER V6.4

AMIGA UTILITIES
- 1030 A12 DIONIC TOOLS
- 612 4 DSK TOOL KIT
- 1629 UN-ARCHIVER

DISK & SYSTEM
- 166 SYSTEM TESTER
- 467 FILE UNDELETE
- 194 DISK OPTIMISE
- 356 ENGINEERS KIT
- 245 FIX DISK
- 168 HARDWARE MANUAL
- 1881 HARDWARE MODS

AMIGA EDUCATION
- 766 GEOGRAPHY
- 532 MATHS 5 DISKS
- 644 ENGLISH 4 DISK
- 486 LANGUAGES 4 DISK
- 270 PLANETS 6 DISK
- 304 ENGINES 5 DISK
- 059 AMIGA TUTORIAL
- 1269 DPAINT 4 TUTOR
- 937 A1200 / 600 TUTOR
- 1361 2 DISK INTERNET
- 1360 AMIGA GUIDE
- 1918 KLINGON TUTOR

DISKS COST £1.50 EACH, NO MINIMUM ORDER, ALL VIRUS FREE AND USER FRIENDLY
All Games are on 1 disk and run on all Amigas unless otherwise stated.
PICK AN EXTRA DISK FOR FREE WITH EVERY EIGHT DISKS YOU PURCHASE

UNDERGROUND P.D., 54 CARMANIA CLOSE, SHOEBURYNESS, ESSEX SS3 9YZ. Tel: 01702 295887

Name: .... Amiga Model: ....
Address: ....
.... Postcode: ....

C programming Part 3

More C help as Paul Overaa puts arrays and pointers under the spotlight

Despite all the trouble that arrays and pointers seem to cause the C newcomer, both are conceptually simple. An array is a collection of objects of the same type arranged in such a way that we can access any one of them by specifying it's position. A pointer is even more straightforward – it's just the address of an object.

When you declare a variable such as int result, the compiler will arrange to set aside some memory for storing the value of the variable as and when you provide one. To declare an array of 10 such items the compiler will need to set aside 10 times as much space, so it has to be told how large the array is going to be. It's done like this:

```
int result[10];
```

C always regards the first array item as having a subscript of zero, so for an array of 10 objects you'd use subscripts from zero to nine. You can, incidentally, initialise arrays by following their declarations with values separated by commas and in this case it's not necessary to include the array size because the compiler works it out for you. Declarations can therefore be written in this style

```
int days_in_month[] =
{31,28,31,30,31,30,31,31,30,31,30,31};
```

With C it's also possible to declare multi-dimensional arrays. Each subscript has to be placed in separate square brackets and so if you wished to declare an array representing the eight rows and eight columns of a chess board you might use

```
int chess_board[8][8];
```

C, unlike languages such as Basic, does not have a built-in string data type. As we saw last week, however, it does recognise sequences of characters ending in NULL as strings and so the declaration char error[45], could therefore be used to reserve space for an error message of up to 44 characters – and it's the programmers responsibility to ensure that the bounds of such an array are not exceeded during use.

When a character array like this is used, C associates its name with a pointer which contains the starting address of the string. It's because of this that, rather than explicitly specifying the starting address, we can write statements such as:

```
printf(error);
```

The standard library contains a number of routines, including printf(), which operate on strings in this way. Because aspiring C coders can also easily make use of string-oriented pointer array declarations however, it's also useful to learn a little about pointer operations early on.

Pointers

C's pointer facilities are based on the use of two operators, & and *. The first, so called address-of operator, does exactly that – it allows you to find the address of a variable. The * operator goes the other way, given the address of a variable it allows you to discover it's contents.

In the following discussions, incidentally, you'll see that I use a _p suffix on pointer variables names. This is not a C requirement but it is a useful convention to adopt – most of the problems with C's pointers result from programmers inadvertently confusing the addresses of variables with their values (despite the fact that ANSI C compilers can catch most slips of this nature there are the odd occasions when they can't).

So, how do we use these pointer operators? Here's one example involving some error text strings. Because of the way C handles these items you might expect that, to form an array containing a series of strings, a two-dimensional declaration similar to that shown in listing 1 would be needed.

This approach certainly works – but in practice there are snags. In the above example error[0][0] then would represent the start character of the first string (Function Complete), error[1][0] the start character of the second string (Usage...) and so on. To print the first string using printf() we could therefore identify the start of the string using the & operator and write a statement like this

```
printf(&error[0][0]);
```

Luckily C allows a shortcut form which allows the above statement to be written

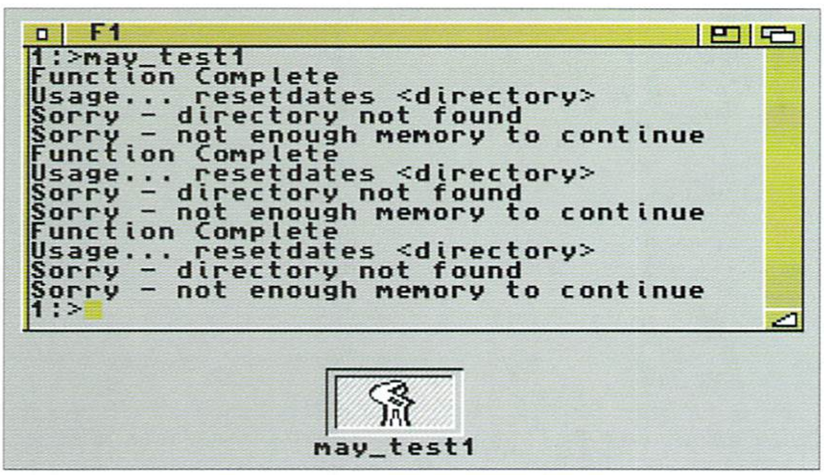
```
printf(error[0]);
```

But the real problem with the two-dimensional approach is that the space allocated for each string needs to be that of the longest string in the set (in this case 44+1 =45 characters). A more memory efficient alternative however is to declare the text strings using the pointer array shown in listing 2. This then ensures that strings of different lengths will be stored without wasting memory and tells the compiler that we are declaring a one-dimensional array of pointers to char type objects. To print that first entry we'd use a similar statement to that used before

```
printf(error_p[0]);
```

but the compiler however would have allocated just the 19 characters required for this string entry (rather than the 45 set aside by the earlier declaration).

You'll find a couple of example programs on disk along with a few additional notes. Next month (which brings us to the end of this introduction) I'll be explaining how the text strings that we've been discussing can be displayed using the Amiga's Intuition library. Nothing too fancy of course but it will give you a glimpse of how Amiga windows are created and used.



One of this month's example programs displaying a series of text items stored as an array

```
char error[4][45] = {
"Function Complete \n",
"Usage... resetdates \n",
"Sorry   directory not found \n",
"Sorry   not enough memory to continue\n",
};
```

Listing 1: A two-dimensional string declaration

```
char *error_p[4] = {
"Function Complete\n",
"Usage... resetdates \n",
"Sorry   directory not found \n",
"Sorry   not enough memory to continue\n",
};
```

Listing 2: A more memory efficient string declaration

How do they do that?

Tiling – Part 2

Paul Overaa dishes more dirt on those tiling effects with this month's instalment, especially for the experts

The assembler and C routines discussed last month certainly work but are, in essence, the beginning of the story, not the end. Tiling large areas using small images is all it takes to show that these obvious loop methods aren't really efficient enough. There are however, a variety of alternative methods around and most coders, at some time or other, find or devise particular variants best suited to their own needs. To be honest, my interest in this area wasn't fuelled by any practical need – I just started playing around with a few ideas one day and suddenly realised that tiling was quite an interesting problem to look at from a mathematical viewpoint.

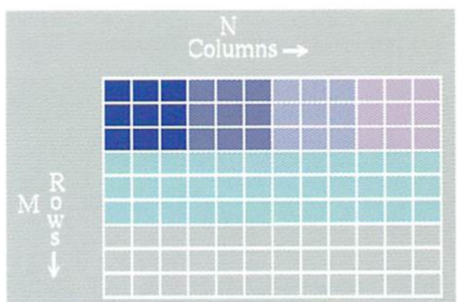
The main execution time cost of the simple loop routines is related to the image drawing function calls and, because functions like DrawImage() use the blitter for their drawing operations, the bulk of the execution time penalty is in setting up the required blitter calls rather than the 'blit' operations themselves. In short the areas of graphics being drawn are far less important than the number of function calls made and, if improvements were to be made, the secret would lie in reducing the number of times any drawing/copying functions were used.

So how do we go about making such changes? The general ideas behind the approach I adopted are straightforward – once at least two copies of the original tile have been drawn we just start to copy successively larger parts of the currently tiled area into portions of the screen that have yet to be tiled.

Benefits

The arithmetic alone tells you that benefits are to be had: The simple loop approach to the drawing of an M rows x N columns grid requires M x N drawing function calls. One improvement then would be to draw a row of M tiles and then use the blitter to copy that row N times down the screen. That would require M initial tile drawing operations followed by N copy operations. M+N is of course much less than MxN (e.g. for a 100 row x 200 column grid the original approach would need 20,000 function calls whereas the new approach would need only 100+200=300).

Further improvements can also be made by thinking about how a row of tiles is drawn. A row of 100 tiles, for example, needs 100 draw operations. Supposing however, we created a two tile block (which would require two drawing operations) and then copied that block 50 times (another 50 copy based draw operations). That would allow us to draw 100 tiles using only 52 draw/copy operations. If we created a four tile block (which would need four drawing operations) then only 25 copy operations would be needed making the total number of function calls 29!



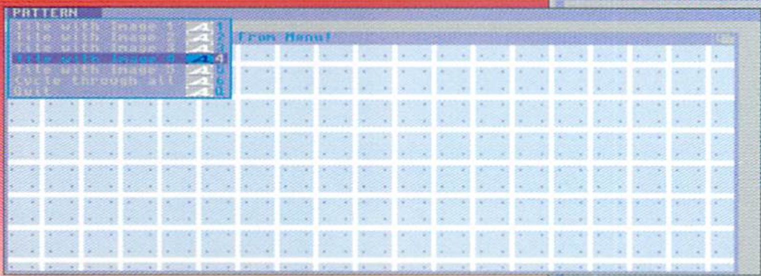
Once the tiled area starts to grow in size blitter operations can use successively larger parts of the currently tiled in their copy operations

Sneaky or what?

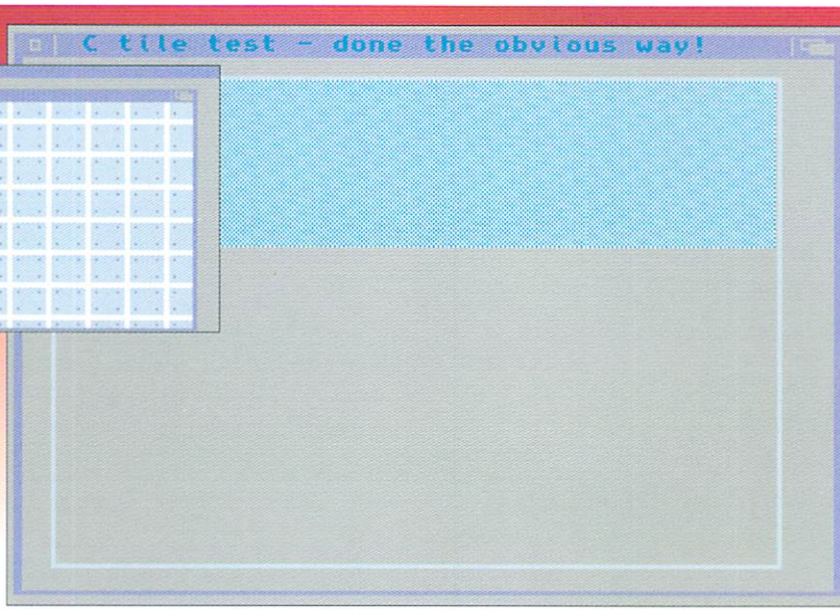
So, there are plenty of possibilities for reducing the amount of copying work involved by creating intermediate blocks of images and copying them rather than the original tile image. I'm not going to go into the mathematics, but I was able to show that the lowest number of functions calls are needed when the block size is the nearest integer to the square root of the number of tiles in the row. And further improvements were also possible because the number of row copy operations that need to be performed can be reduced using the same ideas as those used to reduce the work of generating a row of tiles in the first place.

In writing the routine to test these ideas I added another crafty twist, best explained with an example: Imagine you are drawing a grid of 100 rows by 200 columns. The first job is to draw a row of 200 tiles and it turns out that this is best done using by creating a block of 14 tiles, copying this block 14 times and then adding the four extra single tile copies needed to complete the row. But a block of 14 tiles can be drawn with less than 14 operations – the square root of 14 is 3.74 and so we really ought to be drawing this first block by initially creating a block of three tiles, copying this block four times, and then copying the two residual tiles needed.

When larger numbers of tiles are involved this nesting goes further and it soon became obvious that the way to get the ultimate minimum as far as the number of function calls is concerned would be to devise a routine that recursively calls itself to generate its tile blocks as efficiently as possible. What this means is that, in the case of the example mentioned earlier, only 39 draw/copy operations are needed in order to create a tile arrangement of 200 x 100, ie 20,000 tiles. In this case our recursive routine is only doing about 0.2 per cent of the drawing/copying function setting up work that those simple loop routines were doing. In other words it is about 500 times more efficient!



You won't notice a lot of difference speed-wise when reasonably large tile images are being used...



...But when last month's loop code is used with a small image you really do begin to see the benefits which the recursive approach to tiling can offer.

A WALK THROUGH THE CODE

The DrawTiles() routine that you'll find used in this month's main example is a high-level entry point that makes calls to support functions called DrawRow() and CopyRows() and it is these latter pieces of code that perform the drawing and copying operations. DrawRow() first works out the optimum number of blocks needed and the number of residual tiles that will need to be drawn to complete the row like this...

```
block_size=(WORD)floor(sqrt((double)col
umns));
block_count=columns/block_size;
residual_tiles=columns-
block_size*block_count;
```

And then, if the value of the blocksize is one, it simply draws a tile. If however the blocksize is greater than unity DrawTiles() recursively calls itself again recomputing a new block size and so on. The 'guts' of this area of the code therefore takes this sort of form...

```
if(block_size>1) left=DrawRow(...);
else {
DrawImage(...);
left+=width; /* set left position of
next tile to be drawn */
}
```

Once a complete block of tiles has been drawn the remaining blocks can be copied to produce the required row of tiles and, in the example code (see listing 2), the graphics library ClipBlit() function has been used for the copy operations. DrawRow() concerns itself only with determining the best way of producing a row of tiles but, once this row is complete, CopyRows() then works downwards in an identical way although this time it is copying optimum sized blocks of rows down the screen.

SEEING IS BELIEVING

The method outlined this month is considerably more involved than the simple loop code provided in the previous issue and it's fair to ask whether the added complexity involved is worth it. If you are only ever going to use relatively large tiles (perhaps 10-20 pixels wide or greater) and moderate size window areas – then chances are that simple loop approaches will usually prove adequate. If however, your tiling needs are more demanding then the recursion based approach may well be worth looking at and this latter method will of course become increasingly more attractive as tile sizes get smaller and window areas get larger.

```
void DrawTiles(struct Image *image_p,struct
RastPort *rastport_p,WORD rows,WORD columns,
WORD left_offset, WORD top_offset)
{
WORD row_width;
row_width=DrawRow(image_p,rastport_p,columns,l
eft_offset,top_offset,TRUE);
CopyRows(image_p,rastport_p,rows,row_width,lef
t_offset,top_offset,TRUE);
}
```

Listing 1: The highest level of DrawTiles() looks deceptively simple but in reality this is the start of two dimensional recursion.

```
for (i=1;i<block_count;i++)
{
ClipBlit(rastport_p,left_offset+left-block_width,top_offset,
rastport_p,left_offset+left,top_offset,
block_width,height,0xC0);
left+=block_width;
n++;
}
for (i=0;i<residual_tiles;i++)
{
ClipBlit(rastport_p,left_offset+left-width,top_offset,
rastport_p,left_offset+left,top_offset,
width,height,0xC0);
left+=width;
n++;

}
return(left);
}
```

Listing 2: The graphics ClipBlit() function is used to copy the various tile sections.

THE COVERDISK CODE

You'll find both source and runable version of a test program on the coverdisk. It allows you to select one of a number of images and then uses that image to tile the program's window. As with any Intuition program, there is quite a lot of code involved but this is only because all the usual screen and window allocation/deallocation, menu and other event handling code needs to be present. DrawTiles() and its support routines however can all be found in the source file called amiga.c so you only really need look at the other files if you're interested in the more general aspects of the code.

I've included all the example images on disk as iff files so you can view them in their original form. Image5 is the one to concentrate on because this is the image that has only four pixels in it and, by way of comparison, you'll also find a modified version of last month's C example (now called loop_code) which also uses Image5. This provides a clear example of how slow the conventional loop-based tiling arrangements are when put under pressure.

While I think you'll be impressed with the speed of this month's routine, there are however still a number of refinements that could be made. The square root calculation for example, which is used to determine the block size, could be better performed using a table lookup method rather than the sqrt() function. To some extent though any such changes would just be icing on the cake – they would not make the sort of massive speed improvements that occurred when that first move to the recursive approach was taken.

AMIGA COMPUTING Snippets

AMIGA COMPUTING Advertisers' Index

AMIGA GUIDE

Phil South talks about the creation of menu structures in AMOS

Me'n' You

These days you can just plug in an Intuition library and code your own utility programs right there on the Workbench. But you may not really be aware of how to create menus in regular AMOS, without all the fancy Intuition hooks. You may find, especially if you're not of a technical bent, that this is a better way to do it. Getting a screen together is easy enough with the Screen Open command, but what do you have to do to make the screen and its windows act like a normal Amiga program? I've been doing a lot of this sort of thing lately, so try this listing for size:

```
Screen Open 0,640,256,16,Hires
```

It's nice and simple to start with. Just a medium res screen to give you that utility look. Now we can start to define our menus:

```
Menu$(1)=" Project    "
Menu$(1,1)="Load  "
Menu$(1,2)="Load As...  "
Menu$(1,3)="Save  "
Menu$(1,4)="Save As...  "
```

That's the Project menu done and as you can see, it's a very simple procedure to name the menus, with (1) being the menu title, and (1,1) being a sub menu and so on. We do the same for the next menu, but with a subtle twist:

```
Menu$(2)=" Warp Drive "
Menu$(2,1)="Engage!        "
Menu$(2,1,1)="Are you certain, Captain? "
Menu$(2,1,1,1)="Yes, Mr Data - GO!!"
Menu$(2,1,1,2)="No, sorry - al = Abort"
Menu$(2,2)="Transporters        "
Menu$(2,3)="ID scan        "
Menu$(2,4)="Alter ID       "
```

You can go on adding sub menus like 2,1,1,1,1,1 to infinity, (or to the edge of the visible screen area) but bear in mind anything other than one or two sub menus really gets on the user's nerves in a very short time. Limit yourself to two as a maximum.

Finally we turn the menus on and kick the program off: Menu On and at this point the menus are active. You can of course turn them off later if you don't want anyone using the menus at a certain point in the program. Finally, for the benefit of our listing, a few cosmetic and diagnostic details:

```
Curs Off : Cls 0
Do
        Print "Menu= ";Choice(1);"
Selection= ";Choice(2)
Loop
```

You can now run the program. Notice how the menu and selection numbers change when you select a different menu item. This is how you know what the user has selected, and it's simply that. Find out what choice 1 and 2 are and you know what menu item was under the pointer when the user let go of the right mouse button, or RMB.

But to really make menus fly, especially if you have a few running, you should use the AMOS auto menuing system with ON MENU ON. This takes a little bit of practise, but it's really very simple. The revised program is similar:

```
Screen Open 0,640,256,16,Hires
Cls 0 : Curs Off Menu$(1)=" Project    "
Menu$(1,1)="Load    "
Menu$(1,2)="Load As...  "
Menu$(1,3)="Save    "
Menu$(1,4)="Save As...  "
Menu$(2)=" CyberSpace "
Menu$(2,1)="Engage! "
Menu$(2,1,1)="Are you sure? "
Menu$(2,1,1,1)="Yes - GO!!"
Menu$(2,1,1,2)="No - Abort"
Menu$(2,2)="Morph   "
Menu$(2,3)="ID scan "
Menu$(2,4)="Alter ID"
```

But at this point it diverts into new territory:

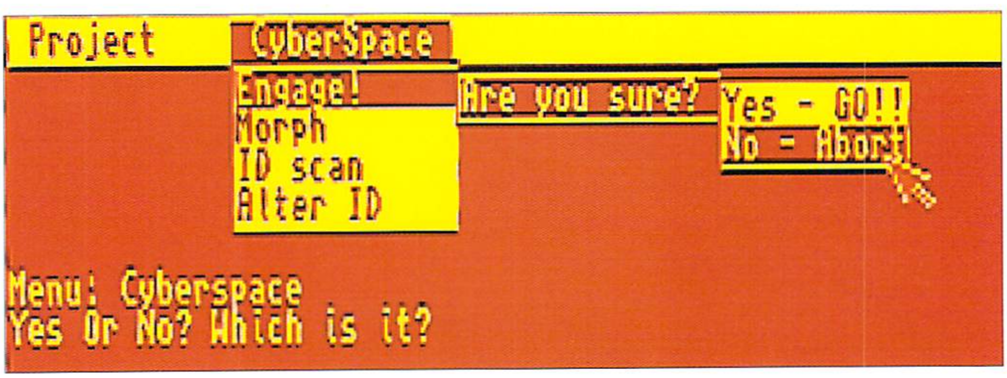
```
On Menu Proc PROJECT,CYBER
On Menu On Menu On Wait Key
```

This turns on the auto menuing system and waits for you to either make a selection from the menus or press a key on the keyboard. The PROCs you mentioned in the ON MENU ON statement are then defined somewhere else in the program, like right now for example:

```
Procedure PROJECT
        Cls   Y=Choice(2)
        Locate 0,22 : Print "Menu: Project"
        Locate 0,23
        If Y=1 Then Print "Load what?"
        If Y=2 Then Print "Load as what?"
        If Y=3 Then Print "Save what?"
        If Y=4 Then Print "Save as what?"
        OM
End Proc

Procedure CYBER
        Cls   Y=Choice(2)
        Locate 0,22 : Print "Menu:
Cyberspace"
        Locate 0,23
        If Y=1 Then Print "Yes Or No? Which
is it?"
        If Y=2 Then Print "Morph yourself"
        If Y=3 Then Print "Okay you're
scanned"
If Y=4 Then Print "You can't change ID"
        OM
End Proc
End Procedure OM
        On Menu On End Proc
```

And there you are; the responses are put into PROCs making the whole thing a lot simpler. You only have to look for one variable CHOICE(2) as the first one, the menu itself is chosen for you automatically and you're sent directly to the PROC that deals with that menu. Once you have subroutines accepting input from menus, you've got yourself the basis for a good menu driven utility program. Now all you have to do is invent the utility. That's the easy part...



Write stuff

If you have any other AMOS programs or queries about AMOS, please write to the usual address, which is: Phil South, Amos Column, Amiga Computing, Media House, Adlington Park, Macclesfield, SK10 4NP. Please send routines on an Amiga disk with notes on how the program works on paper, not as text files on the disk. Make the routines short enough to appear in print (i.e. no more than about 30-40 lines of code) and if possible, no external graphics. That is, any graphics which have to be loaded. If you want to send the graphics too, provide them on the disk in IFF format, the same goes for sound files.

Paul Overaa takes a look at a piece of software for tackling Midi snags

music

When it all goes pear shaped!

Let's face, it's happened to the best of us. You set up your Midi gear, mentally wave that magic Midi wand, press the start button on your sequencer or computer and ... nothing! Well, either nothing happens at all or you hear 'sounds from hell' that tell you something is going badly wrong.

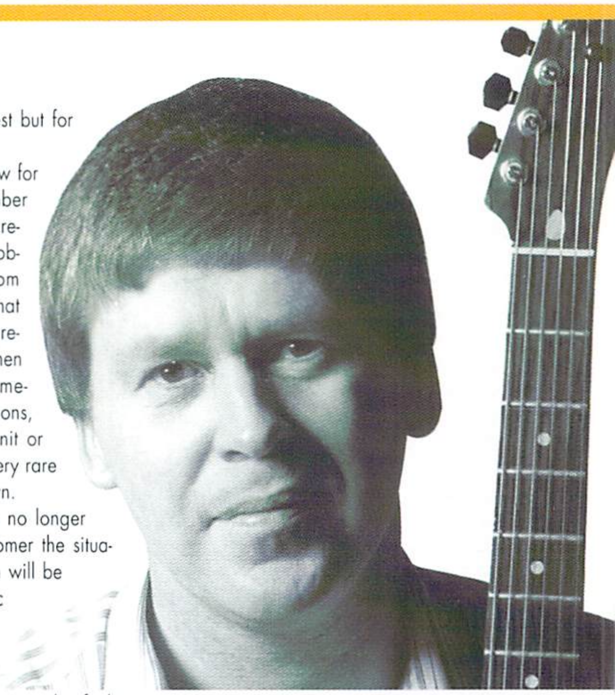
To be honest if that's your worst nightmare, you ain't lived. In my early Midi days I got the band's gear set up one night, popped out to get the A2000 being used for the sequencing and, on the way to the stage, tripped. Now this particular Amiga had a built in Midi interface which included a switch that swapped the serial output from the Midi connectors to the conventional D connector. And guess what had broken off as I tripped - yes, that damned switch. And it was in the D connector position.

So there I was stuck, 30 minutes before a gig, with a band that was totally and utterly dependent on Midi, no spare external Midi interface and a Midi system that was about as useful as an ice cube to an Eskimo. Luckily, I was able to get the A2000's case off, by-pass the Midi interface switch and we got through the night with no further hitches. Those 30 minutes before the start of the gig however were probably the worst in my entire Midi life, but they sure taught me a valuable lesson - hope for the best but for plan for the worst!

I've been working with Midi now for more years than I care to remember (since the Midi standard was first created in fact). But, whilst Midi problems do undoubtedly crop up from time to time, I can truthfully say that Midi itself is not prone to being unreliable as such. In most instances when things go wrong, it's usually something very simple - wrong connections, faulty leads or perhaps a Midi unit or sequencer incorrectly set up. It is very rare for Midi equipment itself to go down.

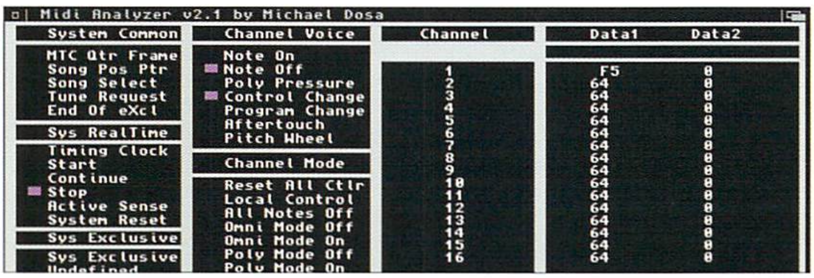
Any odd snags that can occur no longer worry me, but if you are a newcomer the situation will be different. Any problem will be worrying, but before you panic however it's worth getting into the habit of making a few simple checks. Even though most pieces of equipment have their own quirks, fault finding will usually follow the same basic pattern.

First, check the lead's connections are OK, ie the right way round: Sequencer's Midi Out to the first unit's Midi In and then Midi Thrus to the Midi Ins of any successive units (assuming you are daisy chaining Midi unit connections). Sequencer's Midi Out to your thru box Midi In and then a Midi Out to the Midi In of each unit if using a star network arrangement.



Paul Overaa - working with Midi for more years than he cares to remember

If this check doesn't show up any obvious fault the next step is to find some evidence that Midi data is actually pumping through the system. Some sort of visual indication is needed here and many professionals use units such as Studiomaster MA36 Midi Analyser for this. To methodically check connections, leads and channel/mode assignments will, on the average Midi system, take only a few minutes.



Michael Dosa's Midi Analyser tool makes use of the famous Bill Barton's Midi library. You'll find both on this month's coverdisk

Doing Things The Amiga Way

On the Amiga there is in fact a utility that is equally useful as a diagnostic tool. It's called the Midi Analyser (clever choice of name eh?) and was written by Michael Dosa. Basically you just plug Midi gear into your Amiga's Midi interface and any messages that are transmitted will show up as little squares on the program's display.

This sort of feedback means that, in many cases, you'll be able to check settings and correct any faults almost immediately. Problems can, of course, often be caused by you thinking that particular items of Midi gear have particular settings in place when, in reality, they haven't because settings have been changed. Depending on what you've been doing you might have reassigned and memorised different controller settings or changed the program,s mapping characteristics. It shouldn't happen, I know, but the fact remains that occasionally, due to the Almighty Foo Bird, it does. Quite simply, the Midi Analyser lets you check those settings easily and quickly.

Suppose, for example, you are manually switching to different synth voices on your Midi keyboard as you record a sequence, but on playback your synth doesn't change voices. You check your sequence data and find that program change commands aren't being stored. But is this due to the fact that the synth is not generating them in the first place, or is your sequencer filtering them out for some reason?

With the Midi Analyser it's dead easy to find out. Just load up the software and manually change the synth's voice - you'll instantly see whether or not a program change message gets transmitted because the appropriate program change box will appear on the screen. Either way, the Midi Analyser can instantly point you in the right fault-finding direction and, needless to say, this saves time by taking the guesswork out of it.

Neil Mohr takes a quick look at a load of DOS drivers

medical

Drives me mad

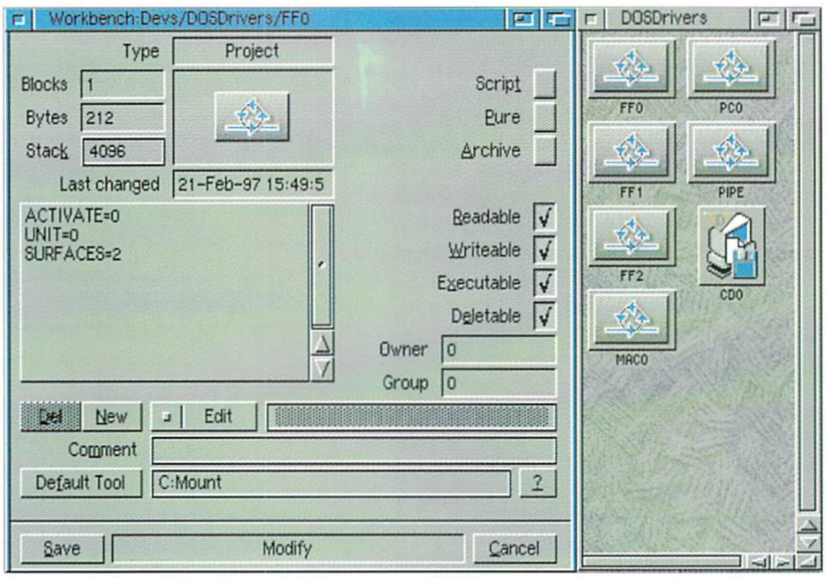
It sometimes amazes me how little some people know about the Amiga. Such thing as the existence of the startup-sequence I take for granted, while some people can go on using their Amiga and never even know what it is. But as computer software advances this sort of (unnecessary) complexity is hidden away from users.

Having started using the Amiga back in the bad old days of Workbench 1.3 and floppy based disk systems, I had to know about the startup-sequence, libraries, devices and the rest. I'm sure long term PC users bang their heads against the wall at the void that is some users knowledge of DOS. And let's face it, if you use 95 you have to know DOS, because as soon as something goes wrong Windows runs of to the mothering protection that is the DOS prompt.

Reliance

Even though Workbench is not as bad as Windows, it is still reliant on AmigaDOS to initially set up specific parts of the system. Usually if these fail, Workbench will still run but you will be lacking the part that failed. One part of the Amiga operating system that constantly seems to perplex users is DOS drivers. These allow new devices to be added to your Amiga and let the operating system know they are there. If you add a CD-ROM or Zip drive a new DOS driver has to be created to let the Amiga know the device is there.

Back in Workbench 1.3 days all this information had to be stored in a single text file called the MountList, stored in the Devs drawer, and had to have a specific entry in the startup-sequence. With the advent of Workbench 2 things were improved somewhat, the Devs drawer was totally overhauled and DOS drivers updated. From Workbench 2, every DOS driver is a separate file stored in the DOS driver directory (found in the Devs drawer) and when your machine boots, any drivers stored in here are automatically mounted.



All those handy dandy DOS drivers can be found in the Devs drawer, we have one or two in use

As standard you will find two icons in here called Aux and Pipe. These are just two plain text files that contain the data necessary to mount the Aux and Pipe devices and you can load these into any text editor you like. If you do, you won't see anything very exciting, but those few lines are very important. They 'describe' the device that should be added to the Amiga's list of mounted devices. At the minimum, this states the software that handles the device. In the case of Pipe, this is the Queue handler. This information is used by the **mount** command to create the new AmigaDOS device that you can access.

Clickety-click

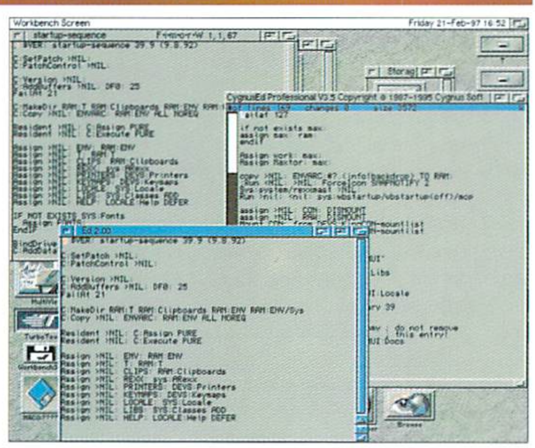
Normally DOS drivers are mounted automatically when you boot you machine, but by double clicking on the DOS driver icon you can run the driver separately (but do not do that now as those drivers are already mounted). If you pop up the icon information requester you will see the default tool is **C:Mount** and is the command used to set up the driver. Another way would be to type in a shell mount and the name of the driver followed with a colon: So for the pipe driver you would type **mount pipe:** to set it up.

One further thing to take note of is that the new **mount command** can handle a couple of tool types in the icon. The main one you will see is ACTIVATE, if you set this equal to zero you can suppress AmigaDOS displaying the device until it is requested. Well, I seem to have run out of room for this issue, next month we will delve into things a little more.

Use your Ed

Whenever you start playing around with these 'hidden' parts of the Amiga you have to use a text editor. As standard the Amiga is shipped with two editors called Ed and Edit, both of which are bobbins and provide the barest of editing tools and are awful to use. Slightly better is MicroEmacs that also comes on the Tools disk, but again lacks even basic things such as file requesters.

So if you are planning on tinkering with System bits and bobs get yourself a more up to date editor. My personal favourite is CygnusEd, a full version of which was given away on our November 95 issue (issue 92). For a more up to date program, try TurboText or possibly GoldEd, a shareware program crammed to bursting with top features, highly recommended for programmers.



One of these editors is doing its own thing, one of these editors isn't like the others. That is because it's poo

Dave Cusick looks at the problems facing e-mail directories

comms

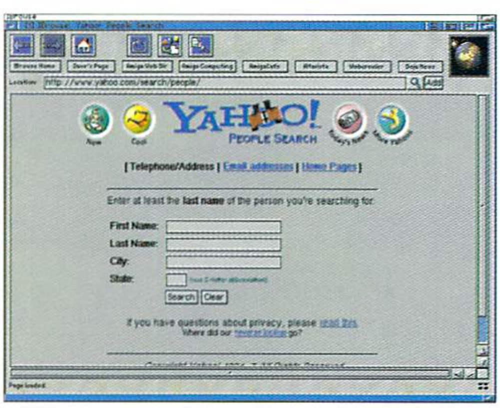
Addressing the world

When a friend gets connected to the Internet it can often be weeks before they finally get around to telling other people their e-mail address, if only because they have not yet committed it to memory and they forget to write it down so they can pass it on. In such situations, or whenever it might be necessary to find the e-mail address of an individual working for a particular company, e-mail directories suddenly become a very attractive idea.

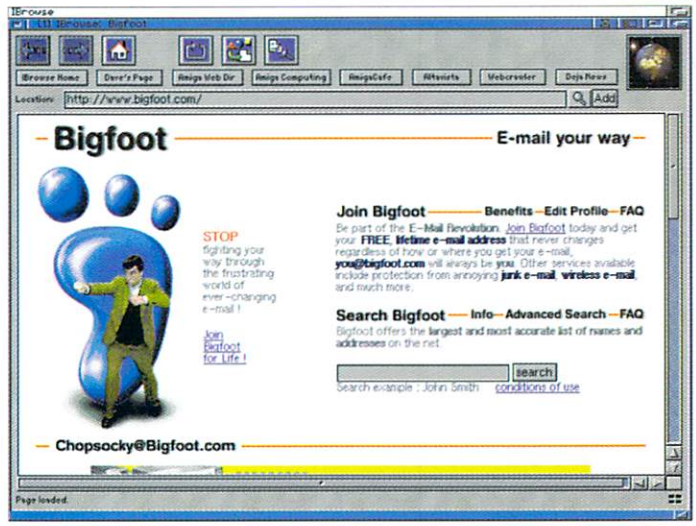
Essentially the e-mail equivalents of telephone books, Web-based e-mail directories have been around for several years now. However, there are all sorts of problems which arise when attempting to use or produce such a resource. Firstly, there are so many different directory services in existence. They generally each contain a smattering of entries from around the world meaning that, in actual fact, finding the person whose e-mail address you really want can be a nightmare, even with the larger directories such as BigFoot and Four11.

Secondly, because electronic directories can be searched very quickly and easily, in comparison to conventional telephone directories, not only are the potential uses greater, but also the potential misuses. This misuse might amount to ploughing through thousands of addresses to compile mailing lists for irritating but relatively harmless junk mail, or something altogether more sinister.

A few months ago Yahoo announced what it promised would be a highly valuable and totally revolutionary e-mail directory service. Simply by entering someone's name into a special Yahoo search engine it would be possible to discover not only their e-mail address, but also their postal address - and in the case of American addresses, to locate their home on a map of the area. Unsurprisingly, there was an outcry and within a couple of weeks Yahoo was forced to shelve the service.



The Yahoo service listed three of my e-mail addresses...one of which I haven't been using for over 18 months now



Bigfoot, one of the more famous directory services

Yahoo had, of course, thought that such a service could have a great many valuable applications. Obviously, people would be able to quickly look up the addresses of friends and family whilst on-line, but another more unconventional use I heard suggested was that a suicidal IRC user could be traced and emergency services deployed accordingly. However the vast majority of Net users seem to be opposed to such directory services, and the reasons they put forward are extremely convincing.

On a basic level, when people talk about the possible benefits of meeting people over the Internet, anonymity generally comes across as being an important factor. I know people who will happily ask an anonymous stranger on the other side of the world for advice via the Internet, but they would not dream of doing so if they thought for a moment that the stranger could ever know for certain who they were and where they were from.

Moreover, it is argued that e-mail directory services constitute an invasion of the privacy of the individuals whose names and addresses are included in the database. When playing with some of the bigger Web-based e-mail directories, many Net users are surprised to find that their names are already included, even though they haven't given their e-mail address to the directory in question.

The fact is they do not always have to - names and e-mail addresses are sometimes taken from newsgroup postings or from lists produced by companies whose Web sites feature fill-out forms. Imagine for a moment that your home address and telephone number are already available on the Web for any individual to discover simply by entering your e-mail address - not a pleasant thought, is it?

For instance, it would be relatively simple for an unscrupulous computer user to obtain lists of other users in their locality and use this as something of a burglary hit list. Even more worryingly, those strange souls who inhabit the more sordid newsgroups and IRC channels would suddenly have a great deal more power at their disposal than simply the ability to write flaming e-mails to the masses.

Bottom Line

The bottom line is that the idea of including people's names and rough geographic locations in an e-mail directory is not in itself a bad one. However, the unfortunate situation is that when it comes to Net security, a little paranoia in the short term will probably pay dividends in the long term.

Contact

If you wish to contact me, my e-mail address is dave@dcus.demon.co.uk. Questions, suggestions and feedback are all more than welcome. I also have a homepage, which can be found at http://www.dcus.demon.co.uk/.

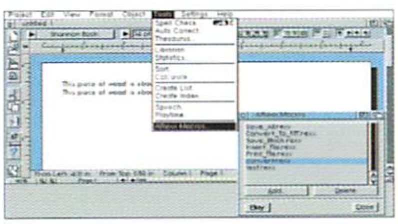
Rexx View

Paul Overaa solves a Scala-related problem, and discovers a little known utility

I had an email from a guy in the States recently who, though being primarily PC-based, deals with Amiga's (4000/030) in connection with a local broadcasting station running 24 hour cable TV via Scala's Infochannel IC500. Scala's Infochannel apparently offers the user the possibility to execute ARexx-scripts and the bottom line is that this was something that, even after six months of trying, they still couldn't get to work. Even simple scripts such as this delay loop failed to work:

```
/* script */
do i = 1 to 15000
end i
```

I'm not a Scala user so I didn't expect to be able to offer much help but it turns out I got lucky, helped mainly by the fact that some output from a utility called RexxView had been provided. RexxView, which at the time I hadn't seen, was



Almost everyone will find RexxView handy on the odd occasion when it's necessary to figure out why some macro hasn't been executed!

apparently able to monitor the flow of ARexx messages and in this particular case produced the following output:

```
Fromtask: Infoplayer
Action: RXCOMM
Modifier: RXFB_NOIO
Arg: HD0 Workbench:/S/WILLEM5.REXX
```

My guess was that this represented the first, so called command invocation message, that Scala doubtless sends to the ARexx resident process asking for a script to be executed. RXCOMM, incidentally, is just a standard flag in the ARexx message packet that indicates a command. The Modifier RXFB_NOIO is telling ARexx that the dos process, which ARexx sets up to run the macro, should not inherit the host's (Scala) input/output handles. Again this is normal – macros run from Workbench started programs don't have Shell style I/O handles.

The key point is that all this information really only means that ARexx has been asked to run a script – it doesn't mean that the script was actually executed. In fact immediately I looked at the filepath/filename that ARexx was being provided with, it made me suspect that the script was never even getting off the ground. The argument...

```
HD0 Workbench:/S/WILLEM5.REXX.
```

is supposed to be a normal reference to a runable script. But it isn't – the monitor program is suggesting a reference to HDO, a space and then Workbench:/S/WILLEM5.REXX. This could have just been a fault in the program's display but, on the face of it, seems as though, somehow, the macro path name had been set up incorrectly. If, as presumably it is, HDO was the Workbench partition then the macro's file path, as every self-respecting Amiga user will know, needs to be something along the lines of:

```
HD0:S/WILLEM5.REXX
```

or...

```
Workbench:S/WILLEM5.REXX
```

or simply...

```
S:WILLEM5.REXX
```

So without knowing anything about Scala or (RexxView), it seemed quite likely that these six months of problems have stemmed from a wrongly specified filepath.

The fact that delays weren't being produced fits in with this theory quite nicely – obviously if the macro filepath has been wrongly set – then the macro would not be found and so no delay would occur!

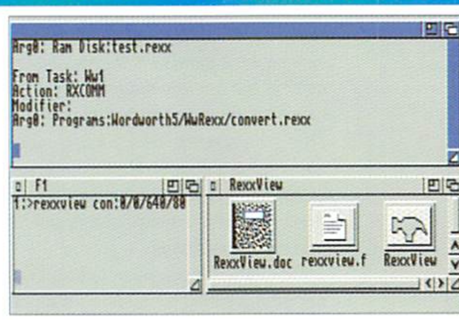
And the utility itself

After seeing the reference to RexxView, I got curious and FTP'd into AmiNet to find out more about it. Sure enough, in the rexx section of the utilities area sat a RexxView.lha archive. Turns out that the program was actually written in 1991 by Martin Kees using JForth and it is indeed a Shell utility that monitors the REXX port. What's more, it allows the received information to be displayed on screen, printed or written to a file using commands such as:

```
rexxview con:0/0/640/80/rexxview
```

It's easy to use and of course, for many users, RexxView provides a simple way of seeing exactly what commands strings are transmitted. Certainly anyone new to ARexx will find this sort of visible feedback quite useful.

The other information provided, namely that found in the Modifier and Action fields, may also occasionally be useful although I suspect that, most of the time, it will not be. What sort of info gets provided? If, for example, you were testing a script that made use of



RexxView – a simple utility but one that does it's job perfectly well!

an external function library, you might see an Action RXADDLIB message occur when the script is first executed. In any subsequent script use however, this message should not occur (if it did this would mean a new entry was being added to the library list each time the script was executed). Similarly, a RXFB_RESULT indicator in the modifier field would mean that OPTIONS RESULTS had been set in the macro being executed.

It might be imagined then that RexxView would be of use in catching all manner of subtle script and macro errors. In practice though, whilst these Action and Modifier names may sound impressive, the use of libraries, options settings and so on are always going to be perfectly obvious from examining the script itself. Minor niggles aside, RexxView does it's job well enough and, since it is a handy tool to have around, it deserved a mention for that reason alone.

When you've finished using RexxView you just terminate it by sending the string 'closerexxview' to the REXX port. This, of course, you can also do from the Shell using the rx command:

```
rx closerexxview
```

That's really all that needs to be said about RexxView – except to point out that the program can be freely distributed. You will in fact find the utility, it's documentation and even the source code on this month's coverdisk.

Parting is such sweet sorrow, so here's just one more Photogenics tutorial from Neil Mohr

2D paint

For old times

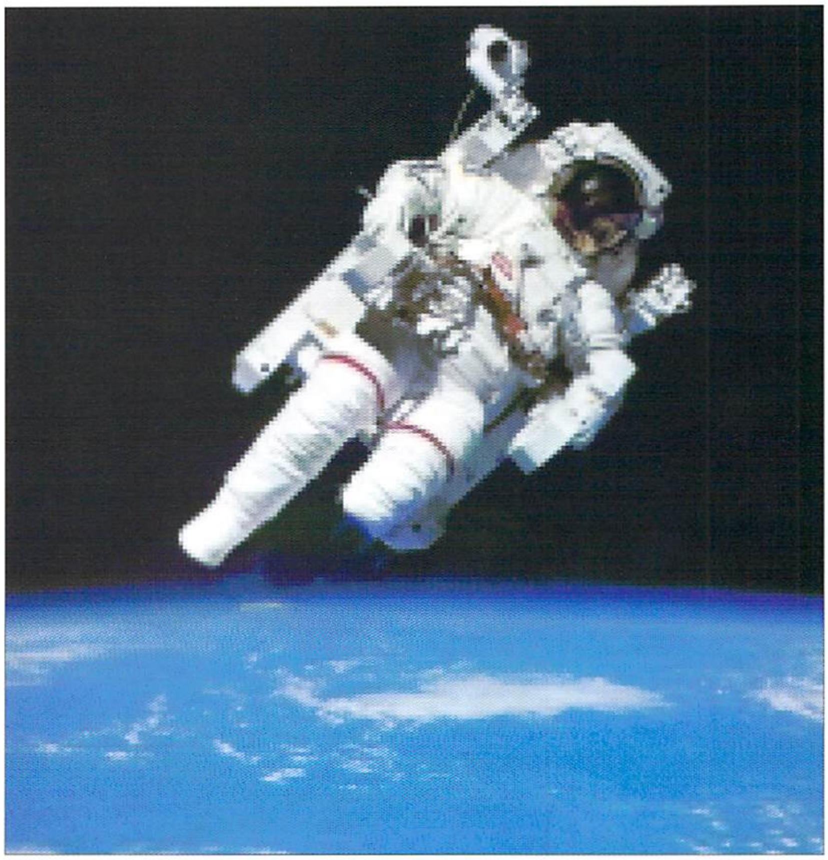
God is in the details, so they say, but it's true it is those little extras that can be so easily overlooked that make all the difference. So I thought I would round things off by mentioning some of the easily over looked tools and techniques in Photogenics. (I know I said last month's would be the final one, but if a woman can change her mind why can't a bloke?)

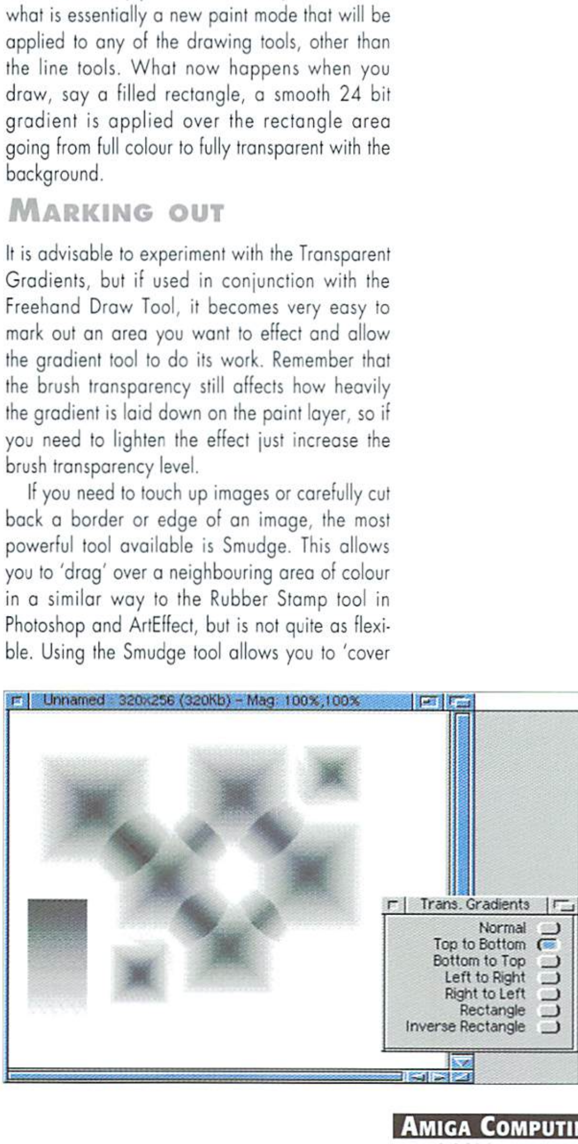
First up on the list for a belated mention is the Transparent Gradient Tool. Once you realise what this does and how to use it, it can become quite useful for helping create smooth gradients – either for direct use on a picture or with alpha channels. Select the Transparent Gradients from the Windows menu. This gets you a new window with a number of radio buttons and selecting any of the buttons (apart from Normal) will activate what is essentially a new paint mode that will be applied to any of the drawing tools, other than the line tools. What now happens when you draw, say a filled rectangle, a smooth 24 bit gradient is applied over the rectangle area going from full colour to fully transparent with the background.

Marking out

It is advisable to experiment with the Transparent Gradients, but if used in conjunction with the Freehand Draw Tool, it becomes very easy to mark out an area you want to effect and allow the gradient tool to do its work. Remember that the brush transparency still affects how heavily the gradient is laid down on the paint layer, so if you need to lighten the effect just increase the brush transparency level.

If you need to touch up images or carefully cut back a border or edge of an image, the most powerful tool available is Smudge. This allows you to 'drag' over a neighbouring area of colour in a similar way to the Rubber Stamp tool in Photoshop and ArtEffect, but is not quite as flexible. Using the Smudge tool allows you to 'cover up' speckles that can appear on digitised pictures or simply remove blemishes from an existing picture. When you need to expand or reduce an area of a picture, by working at the edge of the area and carefully nudging the colour into the new area, you can easily increase or reduce the covering area.





If you find too much or too little of the area is being effected you can adjust the brush size and pressure to alter the overall effect. The one thing you have to keep in mind is that Smudge works directly on the image by passing the paint layer so as soon as you have made a single change you only get one chance to undo it. As soon as you make another, the previous change is permanent.

One of Photogenics' less useful functions, that may come in handy now and again, is the Warp tool. Once selected it can pull off two different types of effects; twirl and bulge. The amount the image is effected depends on two factors, first and most obviously are the actual warp settings themselves. You can alter these by clicking on the warp tool after selecting it, this pops up a new requester that allows you to alter the values. The other way is by the actual area you select for the warp tool to effect. The size of the circular area you choose alters the overall area effected and the cross selects the centre point of the effect.

Finally, Photogenics has a couple of handy ways to select specific parts of images. Both ways essentially give the same result but are arrived at via different routes. The first is from the Image menu – the Select Similar option allows area of colours on the image to be selected on the paint layer. This can be applied to either the current brush colour or by allowing you to select a specific colour from the image.

Fill tool

An alternate way of going about this is to use the Fill tool. You may notice the options for both these methods are the same, allowing you to determine how close a match or wide a selection of the image will be chosen. This is called the tolerance and denotes how close a match to the original colour any part of the picture has to be selected. The smooth value tells Photogenics how much blending there should be at the edges of the final selection. If you want a sharp distinct area, set this low and if you want a gradual blend, set the smooth value higher.

Paul Overaa explains how the conversion of internal file date stamps into readable text form

assembler

Stamp OnIT -

Part 3

The key element in this month's discussion is the translation of AmigaDOS time stamps from their internal form into readable text strings. There is a dos library function, DateToStr(), that takes a pointer to an entity known as a DateTime structure and performs the necessary magic. The function itself is easy enough to use although the initial setting up of the structure (see listing 1) does require a little care. Hopefully, the following notes will help.

The first field represents a dos date stamp, ie the internal form found in the file info block (note, incidentally, that this is the date stamp itself – NOT a pointer to it). Following this comes a dat_Format field which can be set to a number of standard values. FORMAT_DOS for example produces a date in dd-mmmm-yy style whilst FORMAT_INT provides the reverse yy-mmmm-dd form. USA style dates (mm-dd-yy) are produced by setting the field to FORMAT_USA!

The remaining fields are pointers to buffers which will be used by the DateToStr() function for storing the generated date and time strings. The rules are simple: Any buffer pointer that is non-null (ie non zero) is expected to point to a valid buffer area. Set the pointer to NULL however, and that particular string will not be generated. This arrangement does of course make DateToStr() extremely flexible. In our date stamp application

```
STRUCTURE DateTime,0
STRUCT      dat_Stamp,ds_SIZEOF
UBYTE       dat_Format
UBYTE       dat_Flags
CPTR        dat_StrDay
CPTR        dat_StrDate
CPTR        dat_StrTime
LABEL       dat_SIZEOF
```

Listing 1: The dos/datetime.i defined DateTime structure

```
/\/\/\/\/\/\/
lea         datetime_struct,a4
move.b      #FORMAT_DOS,dat_Format(a4)
move.b      #0,dat_Flags(a4)
move.l      #NULL,dat_StrDay(a4)
move.l      a5,dat_StrDate(a4)
move.l      #NULL,dat_StrTime(a4)
jsr                     ConvertDate
adda                    #LEN_DATSTRING,a5        next name space
addq                    #1,filename_count        count this item
bra.s                   .loop                              check for next
\/\/\/\/\/\/\/\

ConvertDate movem.l     d0-d1/a0-a1,-(a7)
move.l      a4,d1
CALLSYS     DateToStr,_DOSBase
movem.l     (a7)+,d0-d1/a0-a1
rts
```

Listing 2: This code sets up the DateTime structure and produces a readable date. The DateToStr() call is sandwiched between movem's to protect the scratch register contents!



Getting serious now, we've even got a brand stamping new boot pic



This month you'll see StampOnIT displaying both file names and creation/last-edit dates

for instance, only the file's date is needed, so we just allocate a buffer for the date information whilst setting the dat_StrDay and dat_StrTime fields to zero.

Buffer tricks

In the interests of simplicity I've made a minor modification to last month's arrangements by extending the buffer space used to hold the date stamp information so that both the DateTime structure info and the converted date string can be stored. In effect then, the buffer is being regarded as a series of data blocks which look like this:

```
(includes the
 date stamp)
```

After date stamp information for a file has been copied to the start of the associated buffer block we just fill in the appropriate DateTime structure fields (setting the dat_StrDate field to the address of the first byte reserved for the converted date string. Having done that we then call the DateToStr() function and the dos library performs the conversion for us. The result is that by the time the file handling loop is complete we've got one buffer holding all the files names and another holding the associated dates in printable form.

I've mentioned before that it's useful to maintain some sort of visual feed back when writing any 680x0 utility – just to help keep things on track. When you examine this month's source you find therefore that I've modified and extended the routines originally used to display filenames.

I've actually decided to keep the Print/Clear routines as a permanent fixture (since they'll be adequate for our purposes) but have added extra IntuiText structures for displaying and clearing the date stamp information. The IntuiText structures are now all linked so that both the filename and corresponding date stamp displays are produced with just one PrintIText() call (and also removed in a similar fashion).

Listing 3 shows the basic loop arrangements for stepping through the newly arranged buffer areas. This produces the display that you'll see when you use the latest version. The next step of course is to build a set of files that store this data and it's this task we need to tackle next month.

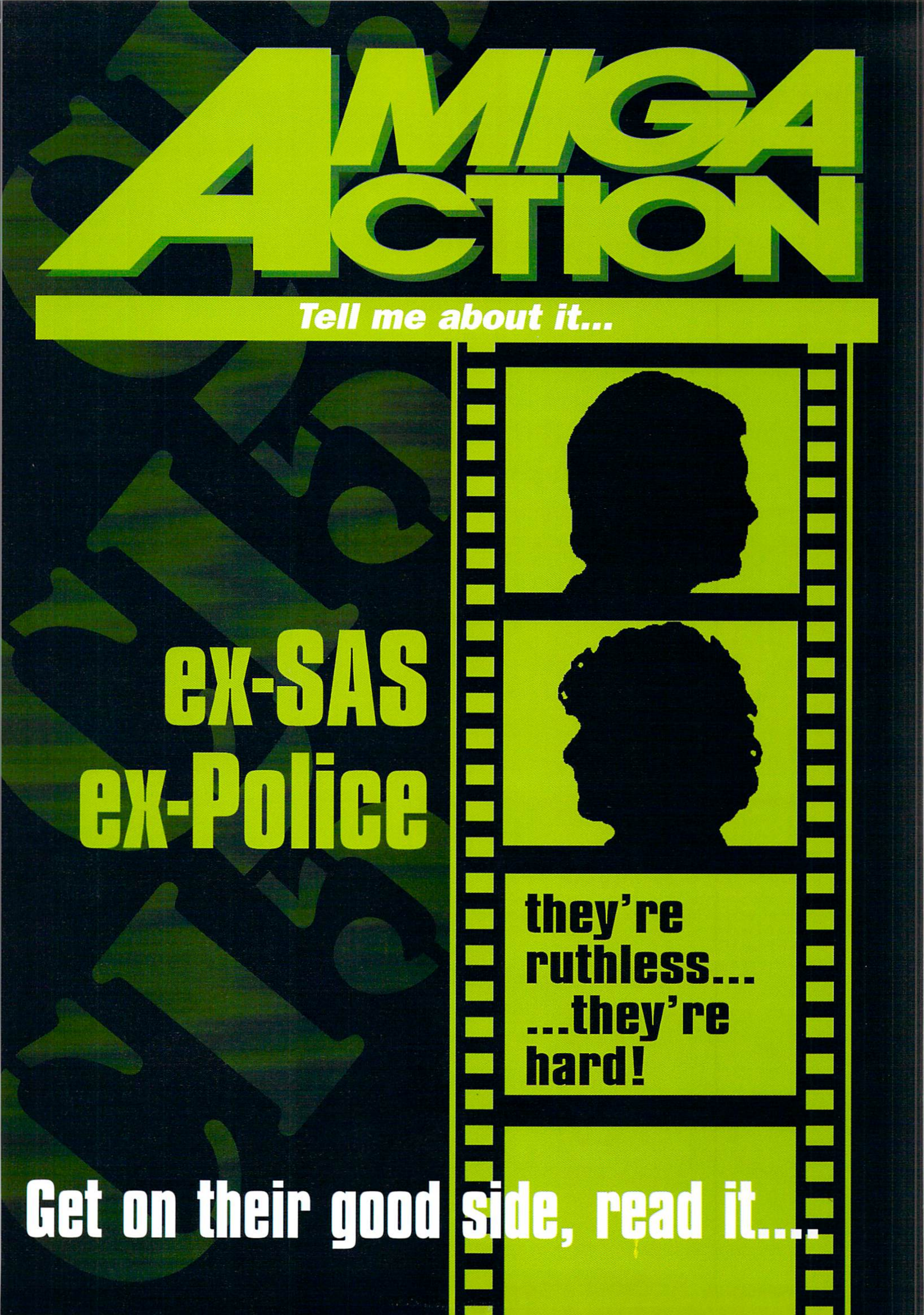
You'll find various other minor code changes in the coverdisk code as well. A few extra labels have been introduced and so on. The delay setting has also been reduced so filenames and dates appear only briefly. This is in readiness for the sort of rapid display that will be used when date stamp files are actually created. If you prefer to slow things down a bit however (perhaps in order to convince yourself that you are seeing the correct dates), just increase the DELAY setting at the start of the source and reassemble the code.

```
move.w      filename_count,d0
beq.s                   .exit                                 NO FILES!
cmpi                    #MAX_FILES,d0
bhi.s                   .exit                                 TOO MANY FILES!

.loop
jsr                     PrintFileName           print filename and date

adda.w      #FILENAME_SPACE,a0
adda.w      #LEN_DATSTRING,a1
dbra                    d0,.loop
.exit                   rts
```

Lisitng 3: The main framework of the new name and date printing loop.


AMIGA ACTION
Tell me about it...
ex-SAS
ex-Police
they're
ruthless...
...they're
hard!
Get on their good side, read it....

AMIGA ACTION news

Power Amigas, Quake, things are looking up.

Hugh Poynton investigates...

CASTLE KINGDOMS

Mutation Software is set to release its latest title, Castle Kingdoms in the next month. Coinciding with this is the announcement that the Fun 'n' Value series of games, currently priced at £14.99, will be reduced to £12.99 from Spring '97.

Castle Kingdoms is an adventure shoot 'em-up in which you have to recover five magic talismans to save your kingdom. From the screenshots the game looks pretty impressive.

In addition to Castle Kingdoms, Mutation Software has announced it will be releasing a further three titles throughout the spring, Monster Football, Kartoon Racers and Tin Toy 2.





QUAKE FOR THE AMIGA?

If we printed this last month you would have credited it as being an April fools wind-up. Well, it's not.

It is now possible to play Quake on an Amiga. Some demo coders have converted the PC version of Quake onto the Amiga. Using a downloaded file called Amigaquake.exe you can play the PC version of Quake.

The news is excellent for the Amiga as it shows that hundreds of games could be ported over to the Amiga - potentially revolutionising the games market. Initial reports suggest that the game runs at quite an acceptable speed on top of the range Amigas – 25 fps on 060/Cybervision3D.





DIRECT POWER

Direct Software has announced that it is selling ready-to-use Power Amigas. The machines utilise AGA chip, 3D chip and 64 Bit Chip technology, make use of a 1Gb Hard Drive and 22Mb of RAM. The Power Amiga will also boast CD Rom, 3,5" disk drive, 7 Zorro slots, 5 PC ISA slots and will be able to emulate both Mac OS and PC Windows. For further details contact Direct Software at 01623 455398

DIRECT SHOPPING

Direct Software is continuing to establish Amiga software and hardware stores not just in the UK, but in Germany as well. Working with IAT international, Direct Software has been able to assure the co-operation of companies within the Amiga scene. The news will be a great relief to those finding it ever more difficult to find Amiga products in the UK.

In addition to existing stores, it plans to open a further 10 stores in the UK and Germany. Stocking Amiga software and hardware, the chain should help to fuel the revival of the platform.

Direct Software plan to open shops in next three years in Newcastle, Leeds, Wales and also Germany. The next shop to open will be in Mansfield (Nottinghamshire) and will open in April.

Apex shake-up

Dave Kirk, the man behind Apex Systems has announced that Apex will probably become a third party developer rather than a software manufacturer and distributor in its own right. Reluctantly Dave has decided to branch out and dedicate time to alternative careers as the future of the Amiga looks undecided.

Apex Systems will however, continue to develop games for other publishing companies and work is well underway on the strategy/trade game Alien Presence: Dawn of the Sixth Sun. Hopefully a publisher will have been decided, a release date of August 97 has been pencilled in. For further details contact Dave on: 01709 890552

Fubar

FUBAR (apparently a military term to mean things have gone pear shaped) is a new multi-player C&C style action strategy game currently being developed by a software team called Q-Group.

The aim of the game is to, quite simply, conquer the world. As in Risk, the world can be divided between the individual players and the game played until each individual country has been conquered.

In order to rule the world you must first blow the stuffing out of your opponents. You have a huge array of hi-tech weaponry and the ability to cause massive explosions to help in your quest. All in all it looks like it'll make C&C look like a fight in a sand pit. At this stage all the design work of the game is finished and the actual coding is set to begin. Q-Group is currently looking for new ideas as to weaponry and 3D rendering. Also a publisher wouldn't go amiss. Anybody interested should contact: 101330.1207 compuserve.com



Great escapee

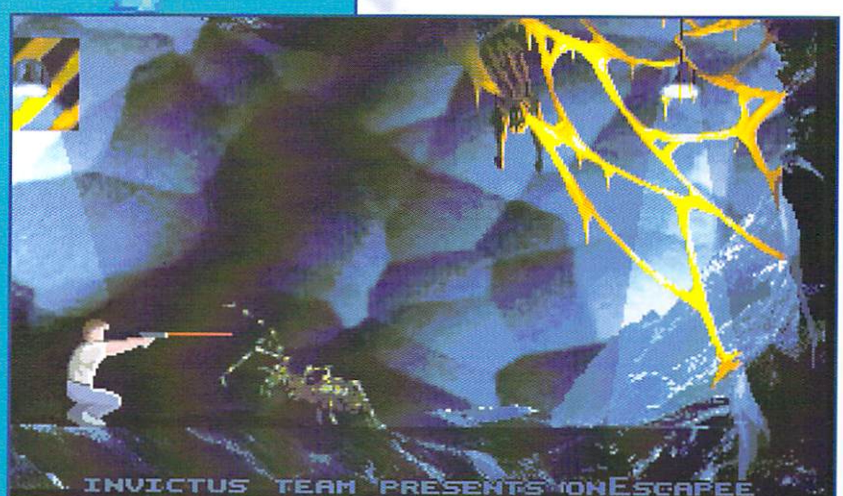
Details of an exciting new action adventure game from Hungarian software team have emerged. The Invictus team hails from the Eastern Hungarian city of Debrecen (also the home of Forgotten Forever programmers, Charm).

The game, OnEscapee, is an action adventure mix of the 1993 PC hit Another World and the Amiga based Flashback. The graphics look superb, much of the graphics and animation having been drawn by hand.

Work on the game has been slow but steady and as a result, the finished product looks very polished and professional. According to Invictus, "The code has been rewritten and the graphics re-drawn many times, as we go over our work from time to time. The game was planned to fill 3 floppy disks, now a CD is required, the music modules have been replaced with digitised pieces of music, the main character's graphics became huge, some rendered elements were included and the CD32/2Megs restriction ignored".

A playable preview is apparently ready which will take up a beefy 50Mb. For more details take a look at Invictus' homepage on: http://dragon.klte.hu/~dakos/#Team





The Strangers

'Iron Man' Hugh Poynton sneaks a look at Vulcan's latest beat 'em-up.

A few months ago a disk from a software development team called Ablaze Entertainment found its way into the Amiga Action offices. Ablaze, after months of work on its Renegade style beat 'em-up, The Strangers, thought it was about time to drum itself up some publicity. The ploy worked, after sending disks to magazines and software publishers all over Europe, Ablaze found a publisher in the shape of Vulcan Software Limited.

A couple of months later, it looks like The Strangers is almost ready for release. Unlike the single disk demo I played back in December, Vulcan's latest 'work in progress' version offers multiplayer support, a large variety of scary looking baddies and a fair number of cunning fighting moves. In total, the finished game will include eight levels, six player deathmatch and, so I'm told, even more moves.

As it stands, the game is looking pretty impressive; a good old fashioned beat 'em-up. The storyline is simplicity itself. You are confronted by a bunch of homicidal maniacs in a variety of locations (disused factory, deserted subway and so on) and, by using your cunning and fists, you have to kill them before they kill you.

The game will probably annoy some people because of its almost cartoony approach to violence. Some sequences remind me of a Ren and Stimpy cartoon. At one point my character, after defeating all but one of the bad guys, got shot by the remaining bloke. Although totally unrealistic, the sequence was a little grim. He got one arm blown off, then the other and finally his head blown in two. Another, more enjoyable, but still quite violent touch to the game is the distinctly ungentlemanly groin kick move. Press the right keys and your character will hoof a bad guy in the nuts so hard he doubles up clutching his crown jewels with a rather pained expression on his face.

Another amusing feature is that the baddies look distinctly unscary. They seem to take their fashion hints from East 17 and Jeff Banks (at least there won't be any bobbling) and having either a slap head or a mullet seems to be an essential part of the '97 bad guy look. Something I have to congratulate Ablaze on is the fact that, unlike many beat 'em-ups where you can simply thump keys in a random manner and turn your character into some sort of human Tasmanian Devil, The Strangers does require you to be actually use a tad more skill.

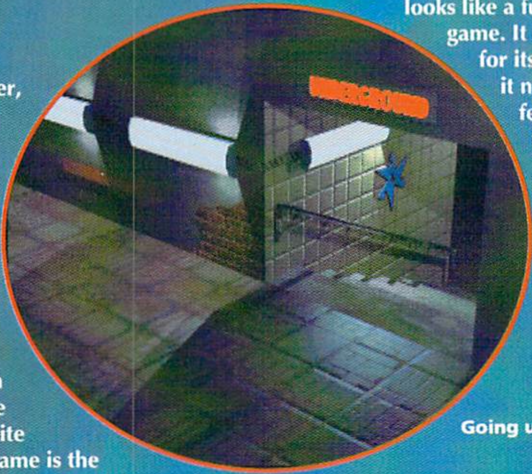
Although I've only played a work in progress version of it, The Strangers looks like a fun little action game. It could do well for itself, especially as it now boasts features such as the six player deathmatch. Release is scheduled for 30 April 1997, so keep your eyes peeled.

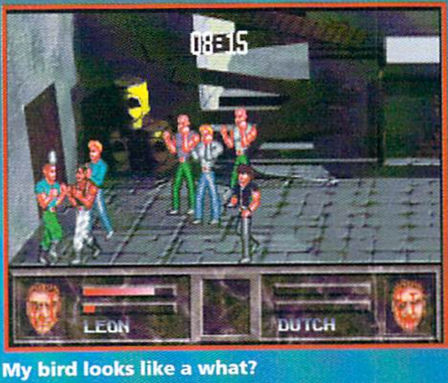


Practise your sporty Spice Girl high kick



Hi-yaa!


Going underground



My bird looks like a what?



Take that!

Siamese SYSTEMS

So you want a Siamese System but need a PC?

!! P133 Siamese Packs from £899.95 call for brochure !!

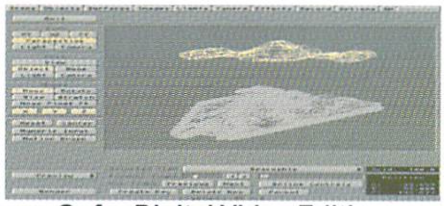
However, if you need *Performance!!*

<u>Then go for the Siamese top of the Range Pentium MMX Windows NT System!!</u>

Specifications:-

- Pentium MMX PCI Motherboard
- 200Mhz Pentium MMX Processor
- High speed SCSI 2 controller
- 4gb SCSI drive
- 8 Speed SCSI Cdrom drive
- Floppy Disk
- 32mb EDO Ram
- ATI 3D Xpression+ graphics card with 4mb
- ATI TV tuner card and Video input card
- Win95 ergonomic keyboard
- Microsoft Mouse
- 16 bit sound card
- Siamese V2 hardware / Software / RTG
- Windows NT4 Workstation
- Microsoft Works V4
- CE apporved Midi Tower Case Tower

Ideal as a Render Engine



Or for Digital Video Editing





Price £2495.00 inc Vat Then You Need <u>SPEEEED!!</u> and We've got it!

Please remember! Any company can build a PC, but only HiQ can integrate it!!

Developed in the UK by HiQ Limited Tel +44 (0)1525 211327 fax +44 (0)1525 211328

Try our internet page www.siamese.co.uk email steve@hiqltd.demon.co.uk

WANTED

★★★

A2000 COMPUTERS

New or Used (NTSC or PAL)

Call Toll-Free: 800 595 5534
Telephone (914) 578-6522
Fax (914) 578-6550

PAXTRON CORPORATION
28 Grove St., Spring Valley, NY
10977

Nemac IV

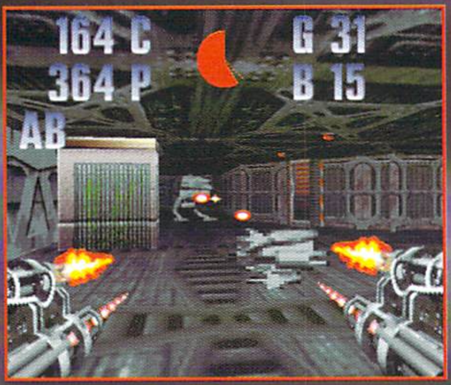
Taking a break from running around shooting robots all day whacked up on Scooby snacks, Hugh Poynton reviews the new automaton shoot 'em-up.

Super computers are a right pain in the butt. I mean look at HAL in 2001: A Space Oddessy. Sounding for all the world like some effeminate, attention seeking, patronising pedant, the stupid thing gives Dave Bowman tips on drawing shortly before trying to lock him out of the spaceship billions of miles from earth. Once rumbled does HAL face his demise calmly and cooly? No rather he pops his computer clogs whilst singing nursery rhymes in a stupid voice. Very dignified. Or the defence computer in Terminator – gets bored one Friday afternoon and decides to start juggling ICBMs. Nice one. Even KIT, David Hasslehof's swish looking TransAm sounded like an English teacher.

Your job in Nemac IV is to stop another of these neurotic, anal retentive computers from destroying the world. The year is 2048 and the world's three remaining nuclear powers have decided to club together and form a series of huge, but manic depressive, global defence super computers. Bad move. Before the warranty's even run out, the thing is on the blink and thinks a big nuclear war is going on. The only way to stop Marvin the Paranoid Android's big brother from blowing up the world is to enter the huge complex he is housed in and pull the plug. Unfortunately for you, this complex is jealously guarded by legions of robots all intent on blasting the bejeezuz out of you.



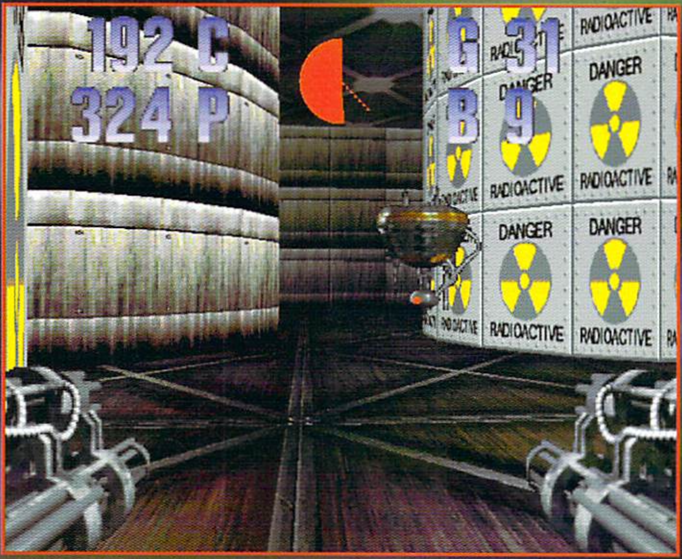
You are in control of a remotely operated walker droid armed with a huge array of weapons including lasers, grenades, machine guns and bombs. All this makes for a fantastic, if unusually difficult game. The thing you should understand before buying this game is that even the first level on an easy setting makes a Platoon-style firefight look about as dangerous as a load of kids flicking elastic bands. The action is intense. As there are 40 levels on the CD, the game is pretty challenging.



Nemac IV is pretty easy to get the hang of. The robot you control has an arsenal of



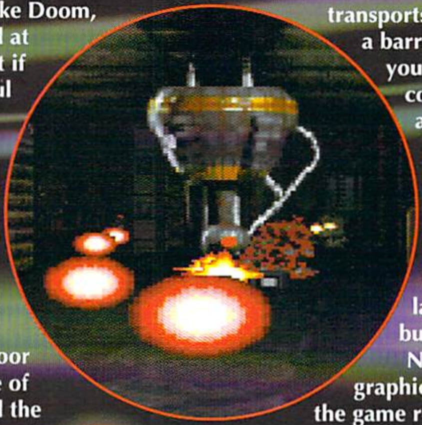






weapons slung on each side of it that would make Arnie jealous and, unlike Doom, you don't have to find these weapons, just make sure you keep the ammo topped up. Also, unlike Doom, all the weapons can be fired at the same time, meaning that if you aren't particularly skilful you can simply run from room to room with all guns blazing until you run out of ammo. Not very effective but at least it looks like you're doing well. There is a very subtle puzzle element to the game – hitting a switch to open a door might mean that the door only stays open for a couple of seconds, so you have to find the quickest route before it slams shut.

Graphically it's stunning. From the start the game looks fantastic. The intro sets the scene and generates anticipation just like a film. Before being transported into the cockpit of the strider we are treated to a film of two mean and ugly looking transports skimming low over a barren desert to deliver you to the heart of the complex. Once actually in the strider the graphics are still excellent, the passage ways and tunnels look suitably dank and the explosions and laser beams look the business.



Naturally this graphical excellence means the game really requires quite a high spec computer. For the 3D rendered into you will need a quad-speed CD-Rom with a decent processor and for the game itself an AGA Amiga with 4Mb RAM, a 68020 CPU, Amiga 2.0 and a hard disk. Nemac has been designed to support any graphics card and the new DRACO from Macrosystem. In addition to this, the game actually supports the Virtual i-O glasses (see our peripherals article).

All in all Nemac IV is an impressive looking game that will keep you hooked for months. After a days playing I'd only reached level three, so actually completing the game will probably take longer than brokering a middle east peace accord.

The game has been particularly successful in America and Germany but unfortunately Parnat software hasn't found a distributor for the game. If you want to get your hands on Nemac IV contact Parnard Hard and Software at:

Parnard Hard and Software
Schillerstr. 24
D-72810 Gomaringen (Germany)
Phone: (49) 7072/8510
Fax: (49) 7072/8511



THE LOW-DOWN

PUBLISHER	Pernart Hard & Software
DEVELOPER	Pernart Hard & Software
PRICE	£29.99
DISKS	1 CD
HD INSTALL	Yes
SUPPORTS	AGA only

GRAPHICS	90%
SOUND	85%
PLAYABILITY	88%

REVIEWED BY HUGH

OVERALL SCORE

86%

Guildhall Goodies...

After re-releasing a number of Microprose games, Guildhall Leisure has started buying up the rights to old Electronic Arts games. Although old, many of these games are absolute masterpieces. Take for example, this month's offerings, Desert Strike and Road Rash:

The joy of the open road



ROAD RASH

Using the road is





The Road Rashers celebrate with lashings of Newkie Brown and cheap cider

Guildhall definitely knew it was doing when it bought up these two titles. Both Desert Strike and Road Rash were classics when they came out and, in terms of addictiveness, playability and general coolness, beat many of PlayStation products hands down. The proof is in the pudding, as they say because, not only is Desert Strike still alive and kicking on the PlayStation, Road Rash has been reincarnated as a multiplayer hyper realistic title for the PC market.

I've mentioned this game before 'cos it's one of my favourites. Like all the best games, it enables you to do the things you'd love to do in real life but would result in fines, imprisonment, injury or shuffling your mortal coil. The aim of the game is simple enough, burn down the road knocking your opponents off their bikes in a very unsporting fashion.

To add that extra element of danger, the roads you bomb down are public highways and along every stretch, one of six highway patrol men is waiting on a fast, but rather crap looking , to nab you (call that a bike, it's a fa*kin hair drier, as Phil Daniels said in Quadraphenia). Huge American saloon cars are also using the same roads but at a considerably more sedate pace (no doubt full of innocent sweet young families on their way to the holiday of a lifetime at Disney World). However, bugger the families, crash into these lumbering behemoths and you will not win the race.

Playing Road Rash is a task that requires the reactions of a nervous cat and excellent hand/eye co-ordination. Although the graphics are now outdated and rather crude, it just doesn't seem to matter when you are attempting to squeeze between two cars going in opposite directions at stupid speeds. Superb timing is also required if you are to cosh your opponents over the back of the head as you pass.

Road Rash is everything a game should be; fast, furious, gratuitously violent and, most importantly, great fun. Like Desert Strike, it'll keep you amused for hours and provide twice the gameplay of many recent console releases. Same advice here I'm afraid - go buy it.

Oh no, its the pigs!





The dirty beggar

THE LOW-DOWN

PUBLISHER	Guildall Leisure
DEVELOPER	Electronic Arts
HD INSTALLABLE	Yes
PRICE	£14.99
SUPPORTS	Any 1Mb Amiga

GRAPHICS	82%
SOUND	82%
PLAYABILITY	90%
DIFFICULTY	Average

OVERALL SCORE

86%

DESERT STRIKE

This is as refreshing now as it was when first released four years ago. Much as I like flight sims, they do have a tendency to take themselves a little seriously with every switch and dial reproduced with sometimes tedious accuracy. Rarely do you find a sim/arcade cross over, but when you do they are always immense fun.

Desert Strike is like playing an episode of the classic '80s TV show, Airwolf. That was the one with the pathologically quiet but nevertheless dashing Stringfellow Hawke and his fat, ugly but still quite cool sidekick, Fat Bob (or something). The helicopter shoots around the screen producing menacing noises and picturesque explosions and the action never gets too bogged down in technicalities. You just fly about blowing up tanks and buildings with your Hellfire missiles while rescuing hostages with a James Bondesque rope ladder.

The storyline and gameplay are both simplistic. A mad dog Middle East dictator called General Kilbaba has invaded a small neighbouring Arab Emirate. Your mission, as the pilot of a souped up Apache, is to fly in and destroy SAM sites, radar installations, trucks and the odd camel. In addition to this there are a liberal amount of hostages dotted about the playing area for you to rescue.

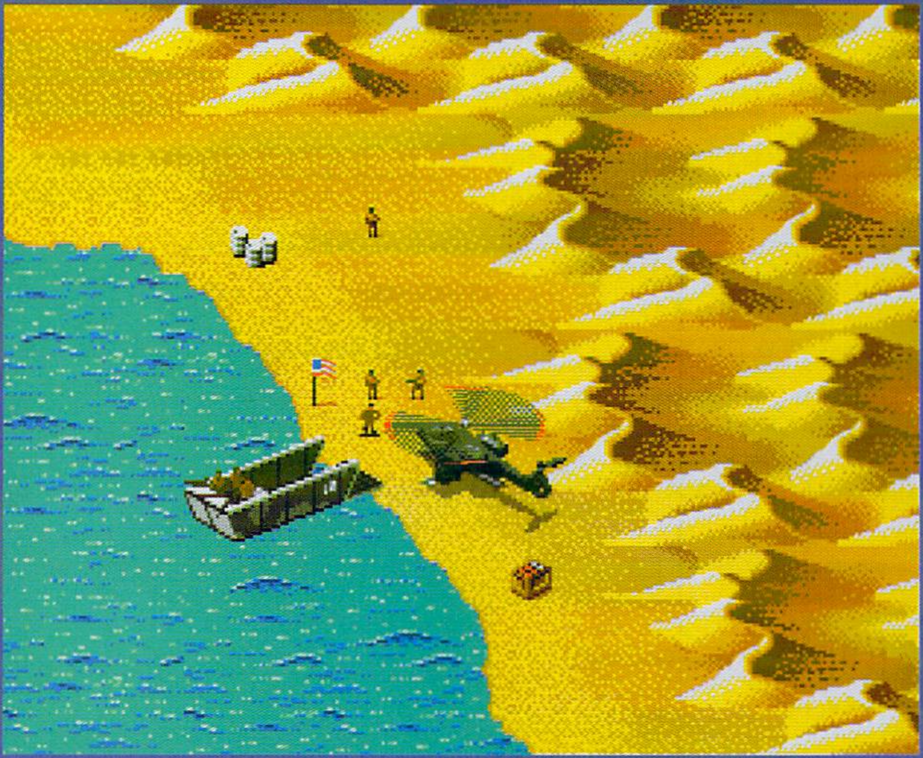
The game is immense fun to play. Unlike most 'blow up the Arabs' style chopper games, Desert Strike has a much more arcade feel to it owing to the isometric view. The chopper is pretty easy to fly although changing direction suddenly can cause it to slew slightly. A sharp turn to the right for example would cause your Apache to continue to skid, altering it's direction. This definitely adds to the game and it lets you do some mean looking stunt flying. The sound is excellent with little shouts of 'over here' issuing from the mouths of the MIA's whenever you fly past them and explosions that the IRA would be proud of.

A fair bit of thought has to go into Desert Strike. Although the game looks like a simple arcade shoot 'em-up there is a certain amount of skill involved and you have to use similar tactics to those needed in a 'proper' flight sim. For instance, if you're shooting up an airfield, you have to get rid of any missile batteries on the ground first so they can't hinder your attack. I've been playing this game ever since it arrived in the office and I can still only complete a fifth of the game, so don't be surprised if you end up playing it until you've got a headache.

There is a certain amount of forward planning involved in the game. Ammo crates, fuel drums and hostages are dotted around the combat zone. Unfortunately your chopper doesn't have the necessary fuel or ammo to accomplish all the stated objectives. You will need to blow up barracks and hangars to seize what you need. Rescuing and safely delivering a hostage buys you more lives.

As proof of the success and the enduring appeal of Desert Strike, consider the fact that Soviet Strike is proving to be a raging success on the PlayStation four years after this game made it big on the SNES.

Although I'm more of a flight sim fan, I found Desert Strike fantastic. It's great fun and more addictive than unadulterated heroin. It will keep you occupied for ages - half the time overjoyed your doing so well, the other half head-butting the monitor because you just got shot down by a Rapier for the twentieth time. Buy it now.



The beach head is where you drop off MIA's to gain more lives



Stop touching my chopper!



This little ship is your home base

THE LOW-DOWN

PUBLISHER	Guildall Leisure
DEVELOPER	Electronic Arts
HD INSTALLABLE	Yes
PRICE	£14.99
SUPPORTS	Any 1Mb Amiga

GRAPHICS	80%
SOUND	85%
PLAYABILITY	90%
DIFFICULTY	Average

OVERALL SCORE

90%

Fanning th

Hugh Poynton investigates the best Amiga dedicated games Web site on the Internet, Amiga Flame

Amiga Flame is, it's fair to say, the greatest source of information on Amiga games available over the Internet at the present time. Updated every week, the site prints details of games both with and without publishers and provides much needed publicity for budding coders and developers. I talked to Philip Cosby, creator of Amiga Flame, about his site, the games industry and future trends in the Amiga games industry.

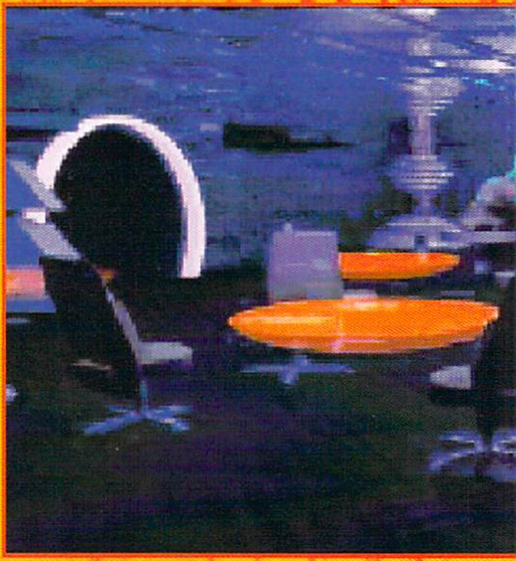
Q. Can you tell us a little about the history of Amiga Flame?

A. The first ever computer I bought was the Spectrum. In those days you didn't buy a game for its graphics, but for the gameplay. I stayed with the Spectrum right to the end and it is awful watching your favourite machine die.

After I was over the death of the Spectrum, I bought the computer that had killed it, the Amiga. This was the machine which showed me not only can you have brilliant gameplay, but you can have excellent graphics too. I grew up with the Amiga and used it for my school work – with its excellent word processors such as Kindwords, it was so easy to use.

My favourite use however, was for games and this is what led to me getting the A1200. After looking at its astounding graphics and hearing about all these exciting games in development I thought it was time to move with the times. I then got connected to the Internet, after all it meant that I could get game demos faster. But while I was on the Net, I started to learn of more and more games in development.

After a month of pre-production, the Amiga Flame was launched in September 1996 to bring games news to the Amiga Community. It started of with only four sections entitled: Amiga News, Future Game Releases, Web Links and Past Releases of 1996/97. The Amiga News section contained all the latest games news and was updated every single week. At first I could only get details of games but later I obtained screenshots and are now regularly used to



The site includes some impressive screen shots

show off the high quality of the games. There are about three new articles up every week.

The Future Games Releases section has given me the opportunity to show just how many games are in development. There are around 90 games mentioned in this list and there are links to developers homepages to give people the opportunity to get more info.

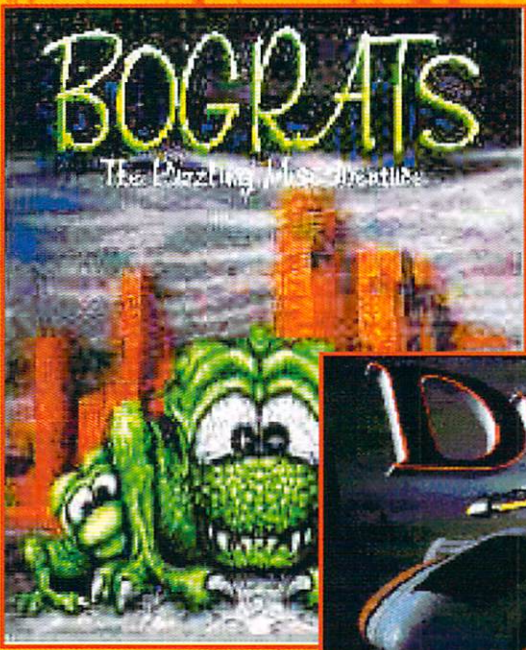
It has now grown to include Demo of the Month, Game reviews and will soon include a special section to help Games Developers link up with publishers. It will give advice on how to approach a publisher and much more, which will hopefully benefit both the developers and publishers.

The Amiga Flame Web site is always trying to expand and help out more of the Amiga Community, but it is mainly down to the readers to ask for something new. For example, I was recently asked to add a Cheats section – this is now being considered. It's all down to reader input and this way I don't run out of ideas.

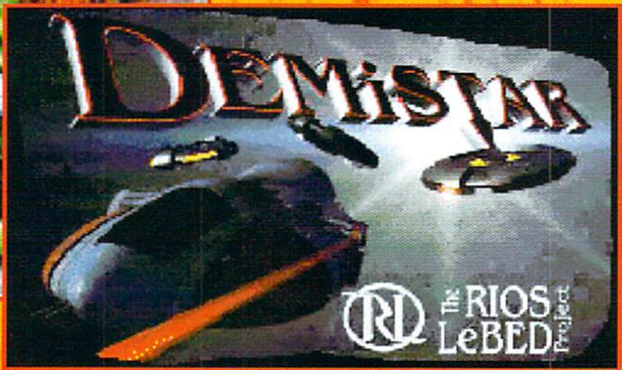
Q. What inspired you to start Amiga Flame?

A. I had seen the Amiga games magazines getting thinner and thinner until some of them actually closed. Games users were getting more depressed and games development activity appeared to be low. Some Amiga journalists seemed to think the end was nigh, even I thought things were going wrong.

My opinion changed after I got connected to the Internet. Over a period of one month

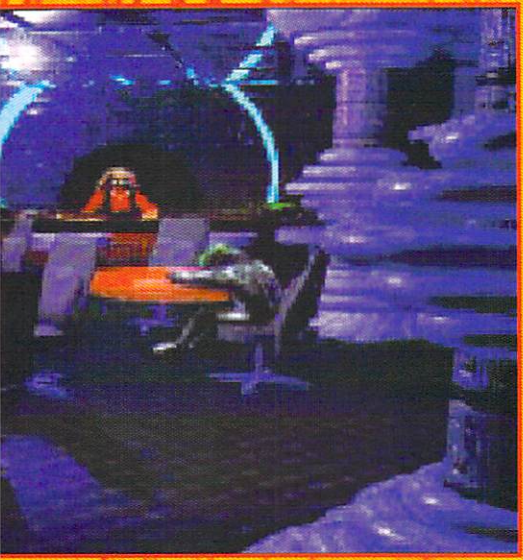






Amiga Flame features games both published and unpublished

ne Flames



searching, I found that there were plenty of games in development, more than I ever imagined. I saw that the games magazines had got it wrong and I thought it was time to get the news out. In September 1996 Amiga Flame was born.

I set myself up with one goal – to bring positive up-to-date games news to the Amiga community. There was one problem though. Many Amiga owners were convinced the games market was doomed. It was as though they were in a dark room and could see no future, only darkness. I had to light up that room and show them that there are many amazing and exciting games in development. Every week I put up games news to prove this was the case.

You must remember that I don't get any money for this, I am doing it because I want to help the Amiga Community in any way I can and see the Amiga in its rightful place as the number one computer in the world. It may take a while but it will get there eventually.

Q. What has the Amiga community's response been to Amiga Flame?

A. When I first started it wasn't very good, many people didn't think I could bring them games news every week. After a month or so it all changed and e-mails of support started coming in from all over the world. I think this was due to the new section I opened called "Demo of the Month" and had plenty of e-mails saying how this had influenced people to buy certain games.

I have now got support from games developers throughout the world. I have built up good contacts throughout the Amiga community and they have helped me get more games news. Without the help of those contacts and the co-operation from games developers, Amiga Flame wouldn't be as good as it is now. They have helped to make Amiga Flame one of the top Amiga Games Web Sites to visit.

Currently I have no contacts outside the Net, but I hope to soon gain more contacts in companies and in this way I can double the amount of news.

Q. Would you consider yourself almost as a 'match maker' between independent developers and software companies as well as a journalist?

A. Since the first time I used the Internet, I have always passed info about games to publishers. However I did have a bad experience with a company that went Shareware. The game was brilliant and they had decided to go Shareware, so I tried my best to help news of the game get about.

Later I asked them how it was going. Sales were really low; less than 50 copies had been sold. The developers had hoped for so much more and seemed really depressed. Luckily, after contacting a publisher they linked up with a developer and now the game will be developed into a full commercial product. I realised then that Shareware is very bad for the Amiga games market and I didn't want to see any more games developers going Shareware.

Some of the info and screenshots I received on certain games were unbelievable. The graphics were stunning and these games deserved to be commercially published. Someone had to help these developers link up with publishers and I wasn't prepared to sit by and wait for someone else to do it. Details of every game that has been mentioned on the Amiga Flame Web site have been passed onto publishers. I hope that most of these games will eventually get published. I have to emphasis this point. DON'T GO SHAREWARE, send the game to publishers. If you go Shareware you will always wonder whether your game could have been something bigger.

These developers had helped me complete my main goal and it was about time for me to pay them back. It also meant the Amiga Flame readers would eventually be able to buy these games. What's the point of doing a news article on a game if the game isn't going to ever get released?

I saw that publishers were looking for games and it gave them a reason to stay with the Amiga. So when I got details and screenshots I simply passed it all onto a publisher and did a news article on the game. Many developers don't even know I have tried to help them. I am not really a match



Vulcans genetic species



Explorer 2260 and Demistar

maker, I am just trying to help the Amiga community.

It's a good feeling to know that you have helped get a game published. It not only helps developers and publishers, but magazines, retailers, wholesalers, hardware manufacturers, distributors and many other companies. It helps to make a stronger games market.

Q. What do you think the future holds for the Amiga?

A. I see a very bright future, particularly with so many companies wanting to buy the Amiga. Personally, I would like to see Quikpak buy the Amiga. I was talking to a games developer who told me that he was getting vast support from the company.

It surprised me to know that Quikpak was helping games developers and it showed it cares about the Amiga. It hasn't been shouting this out to the games magazines and isn't using it as a point to get support. Quikpak appears to be keeping its plans for the Amiga secret, but I have heard that it plans to use the DEC Alpha Processor. I have also been told it is working closely with HiQ Limited and it's good to see it is co-operating with other companies.

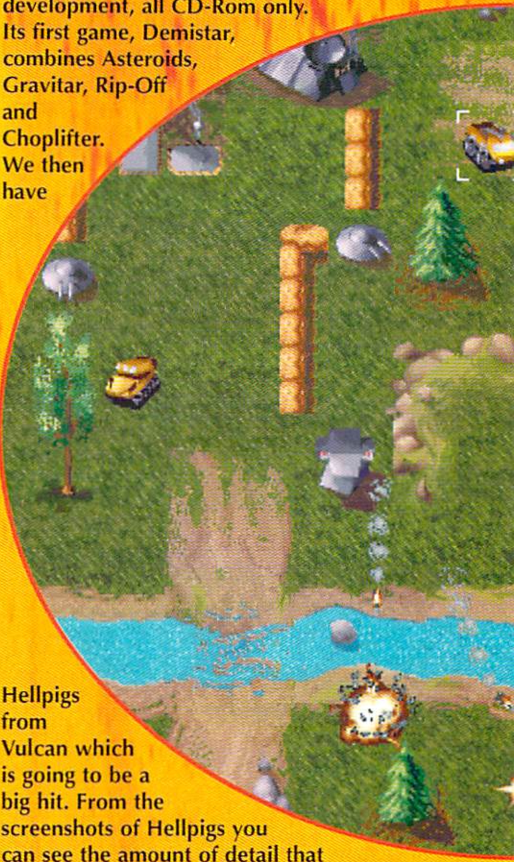
Ultimately I would like to see hardware developers like Phase 5, Quikpak and HiQ Limited come together and pool their resources and money to make the new Amiga. Together they can rebuild the hardware market faster and stronger, divided they can weaken the market.

The software market is starting to get stronger and there are many games in development but the important thing is that these games get publishers.

Q. Is there definitely a move towards CD-Rom based games such as DemiStar and the game under development by BlackBlade?

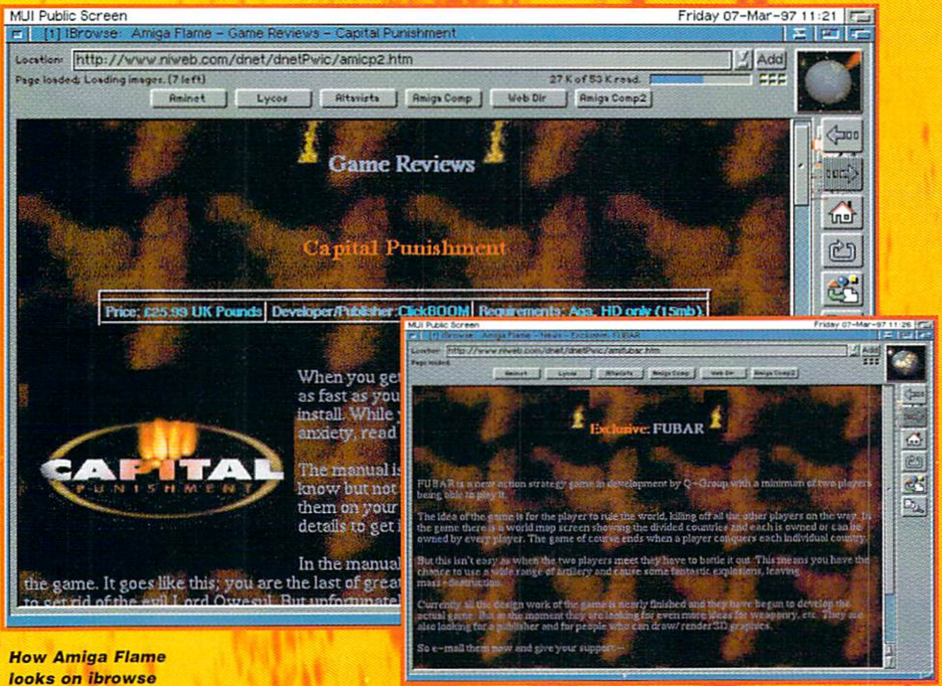
A. I think the CD-Rom market is set to explode. Everyone with CD drives should prepare themselves for some of the most awesome games they have ever seen. People who don't have CD drives will probably upgrade after seeing the graphics in these games.

The RIOS/LEBED Project is developing Demistar and has another four games in development, all CD-Rom only. Its first game, Demistar, combines Asteroids, Gravitar, Rip-Off and Choplifter. We then have Hellpigs from Vulcan which is going to be a big hit. From the screenshots of Hellpigs you can see the amount of detail that has gone into it.



Black Blade is developing a game with a Comanche-like flight simulator and a mission system similar to X-Wing. Aurora Works is developing Betrayed, an adventure game on CD-Rom only. We also have The Hunted being developed by Direct Software (CD-Rom) which may come on up to 5 discs in different parts. Effigy Software is currently developing two CD games but this is for dual format. We should see the first one, called Ffigy, sometime in the Spring.

There is a good possibility that there may be CD-Rom versions of Foundation and Phoenix. Foundation is a real-time strategy war game; a type of Settlers/ Civilisation for the Amiga. Phoenix is a game in a similar vein to the famous PC Privateer series.



How Amiga Flame looks on ibrowse

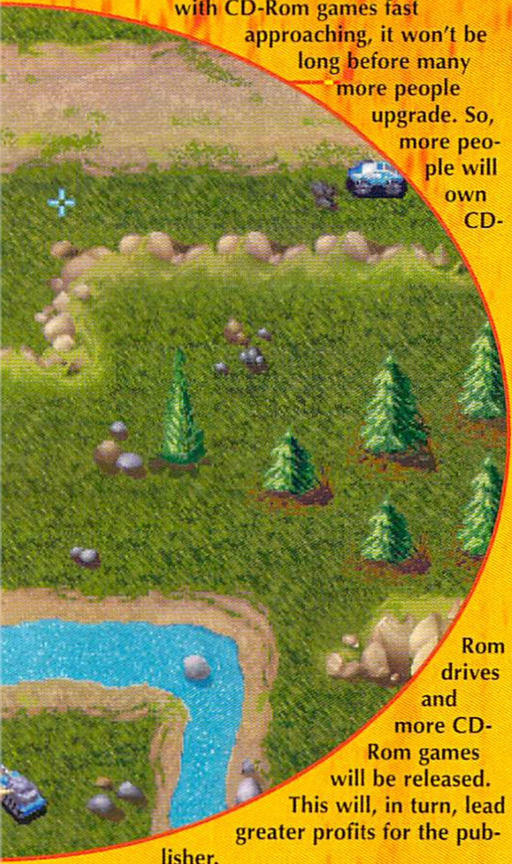
FLAME

, Demo of the Month, Game Reviews, Links and much more.

Q. Do you think these games will sell in big enough numbers to make them economically viable or is the Vulcan approach of aiming games at slightly more bog standard machines always going to win out?

A. The days of low spec machines are numbered. When people saw Breathless and Alien Breed2 3D they all wanted to buy accelerators to play them and plenty of people did upgrade. But you must remember that this influenced people to buy them.

If publishers show off these CD-Rom games then people are obviously going to want to play them. The price of CD drives has come down to a reasonable price, and with CD-Rom games fast approaching, it won't be long before many more people upgrade. So, more people will own CD-



Rom drives and more CD-Rom games will be released. This will, in turn, lead greater profits for the publisher.

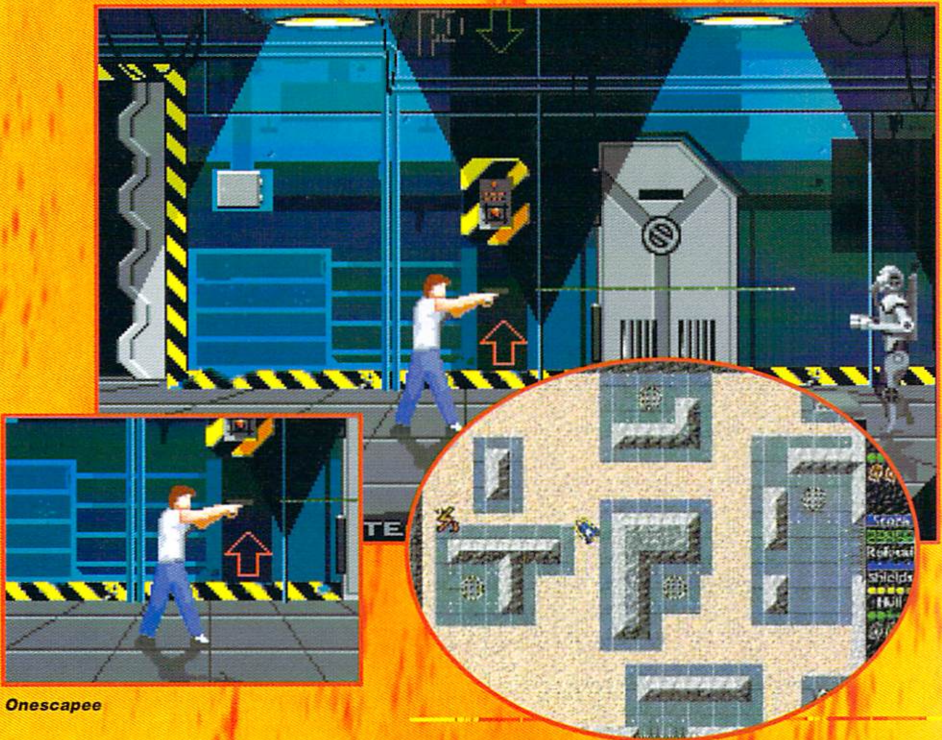
Q. In your opinion which developers and games look like being the stars of 1997?

A. That is very hard question to answer, not because there are too few games but because there are too many to choose from. Of course, we should watch out for all the games from Vulcan Software, particularly Hellpigs which is going to be a super game. They have tonnes in development and everyone should watch out for Strangers AGA which is a beat 'em-up in the old Renegade style. From the graphics I have seen, it looks like a really addictive game and something to look forward to.

Forgotten Forever could also be a massive hit this year. It is the first C&C type game for the Amiga. There are other C&C clones in development, but this has got to be the furthest. We have games from Epic marketing such as Sixth Sense Investigations, a funny adventure game and Testament which is another Doom clone. Other games to watch out for are Phoenix, Foundation, Explorer 2260, Zone 99, Fortress Of Fear, Castle Kingdoms, Flying High and another ninety odd games, all of which are going to be all stars in their own right.

There are plenty of CD-Rom games I have listed already which will certainly cause a lot of excitement. We have definitely got to watch out for The RIOS/LEBED Project who are developing plenty of CD-Rom products and I think who will definitely be a star of 1997.

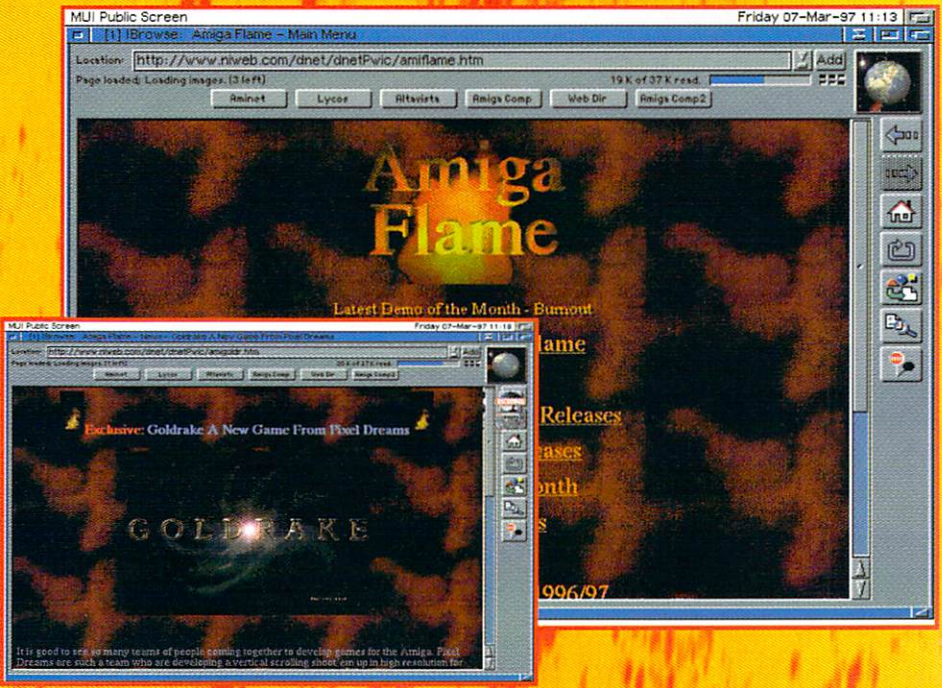
This year, and last, has seen many artists, programmers and musicians coming together from all over the world to make games for our favourite machine, the Amiga. The games they development are certainly some of the best the Amiga has ever seen and we must give these developers and publishers our support. 1997 could be the best year for top quality games for the Amiga.



Onescapee

Check out the Amiga Flame site at: UK Site - http://www.niweb.com/dnet/dnetPwic/amiflame.htm
US Mirror - http://www.geocities.com/TimesSquare/Arcade/6437/amiflame.htm

You can contact Philip by e-mail at: philip@mailman.dnet.co.uk or
Amiga Flame,
65 Harmin Park,
Glengormley, Newtownabbey,
County Antrim, United Kingdom.



Virtual Ins

Hugh Poynton's ultimate guide to Amiga peripherals

20 years in the future. Little Johnny sits at his desk in his bedroom, his 400 MHz, 100 Gig, Power Amiga humming away at his desk. Gingerly he slips on his VR glasses. In the urban decay and blight of 2017, reminders of the 20th Century seem to offers some kind of refuge from the stress of modern life. Reflecting this design trend, Johnny's glasses are modelled on a pair of NHS tortoiseshell horn rimmed spectacles that were popular back in the old days. Next come the gloves, these too emulating design classics of the 20th Century (Marigolds). Finally, he carefully affixes the deely bopper ear pieces to his head. Resplendent in the blue white glow of his monitor, Johnny slips into the digital ether that is Cyberspace.

In Cyberspace, Johnny's disembodied hand floats before his face. Stabbing his digitised finger at the Deathblade 2010 icon, he prepares himself to be launched into the blood and adrenaline soaked world of 21st Century motorised lawnmower racing. Rumours persist that people have experienced fits, persistent nightmares, even post traumatic shock after playing this ultra violent and realistic game. Johnny braces himself...

A vision of the future. Who knows, it could happen. One thing is for sure – the future of gaming must involve advances in the field of computer peripherals. What is the point of creating increasingly realistic games unless you can overcome the fact you're seeing it on a small telescreen, inputting your commands with a plastic stick.

Here at Amiga Computing we have decided that the future can't wait. Our mission, our goal, our raison d'être has been to investigate just how many futuristic peripherals exist to create the ultimate Amiga experience.

Here's the set up. I call it Slight Immersion:



Quickshot 137F Python Joystick

Quickshot 137F Python Joystick

The Python Quickshot is a pretty good, honest, straightforward peripheral. A squat, stocky looking base promises not to give way even under the heftiest punishment and stops the thing wobbling about while you're playing. The stick itself is made out of quite tough looking plastic and is moulded into a nicely scalloped, ergonomically pleasing shape. Two functional fire buttons top off this inexpensive, quality peripheral. The only criticism that I could make is the fact that the thing is so noisy. Whenever the stick is pushed back or forth it makes a noise reminiscent of somebody cracking their knuckles.

In short: Quality stick that looks like it can cope with some serious gaming punishment.
Contribution to Slight Immersion: 7/10
Price: £11.99

QuickJoy Foot Pedals:

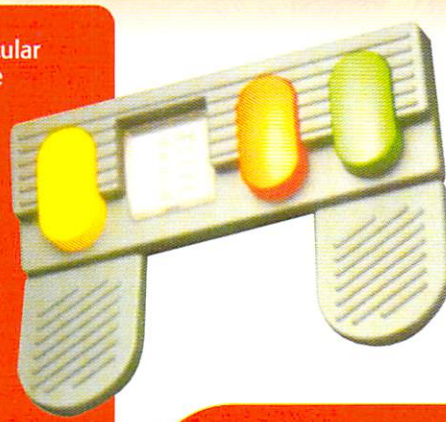
What an invention. Feet definitely don't have enough fun in the playing of computer games and I think it's excellent news that somebody has finally redressed the balance. If you're playing a smart driving sim, being able to use foot pedals definitely makes the experience that little bit more realistic and enjoyable.

Despite its garish appearance, the QuickJoy Foot Pedals is a quality product. Designed to be used in conjunction with a joystick or steering wheel, the pedals can be

sanity

programmed to your particular preference. Luckily they are fairly sturdy – a definite advantage as they will receive a pretty good stomping in their lifetime.

The only problem is that the grip on the bottom of the pedal unit isn't adequate to stop the whole caboodle slipping across the floor when you stomp the pedal to the metal. However, wedge it against the edge of your desk (or Slight Immersion console), and you'll be sorted. Special Reserve is actually giving these away as free gifts when people order products from them.



QuickJoy Foot Pedals:

In short: A quality device that allows you to literally 'floor it' instead of just wiggling your index finger.
Contribution to Slight Immersion: 8 out of 10
Price: £12.99

Aura Interactor:

The secret of Slight Immersion is to bombard as many of the senses as possible. You need to be bombarded both visually and audibly. The Aura attempts to go one step further. Its bass speaker thumps you all over so that explosions and gunshot feels just like the real thing (mmm great). Plugged into the sound port of an Amiga, the Interactor channels vibrations via electro magnetic actuators onto the plastic turtle shell fixed to your back.



Aura Interactor:

Sounds impressive doesn't it? Well it isn't. If your idea of a hyper realistic gaming environment is one where you keep getting thumped then go play kiss chase in Moss Side. Providing you don't stuff your wallet the experience would probably be cheaper as well because the Interactor costs £69 or there abouts.

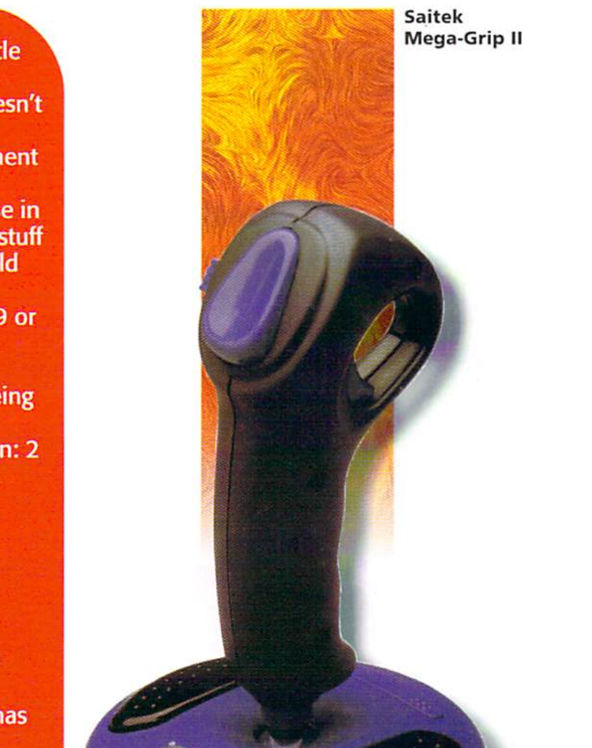
In short: Less enjoyable than being beaten up and robbed.
Contribution to Slight Immersion: 2 out of 10
Price: £69.99

Saitek Mega-Grip II

This is truly the king of Amiga joysticks. The stick looks like it has been pinched from a parked X-Wing, with its smart pistol grip, huge fat base and shiny finish. Unlike other sticks, the Mega-Grip doesn't just move a few degrees, this thing can be wangled about madly which, for some reason, strikes me as being really cool.

The Saitek has a very solid and reassuringly tough feel to it. Some joysticks you could imagine coming apart in you hand in the middle of a game – this thing could be used to hit baseballs with and it still wouldn't break (probably).

In short: It looks a million dollars, feels great and is a must for flight sim fans.
Contribution to Slight Immersion: 9/10
Price: £12.99



Saitek Mega-Grip II

Some of the slightly weirder peripherals that seemed like a good idea at the time.



Product: ThunderSeat
Platform: All
Price: $159.95
Product Description: A stylish Jimmy Saville-like chair made with flight simulators in mind.

If you expressed your intention to sit on a big fat woofer in public, you would probably have the police, RSPCA and lots of old grannies on your case before you could say 'cruelty to animals'. Luckily the woofers in question here are bassy speakers that rumbles the body to such a degree it feels as though your in the middle of that exploding spaceship, MiG or Rally Car.

Judging by its scarcity (have you ever seen one?) it probably died a death because eating a bowl of mushy sprouts could probably assure the same 'bass rumble' for a fraction of the price.



Product: Virtual i-o Glasses
Platforms: All
Price: About the price of a small second hand car (£600-£800)
Product Description: A very trendy, 21st Century looking pair of VR shades.

Only a couple of years back Virtual Products GmbH, a subsidiary of Escom AG, unveiled its Virtual i-o glasses – a virtual reality headset weighing only eight ounces. The glasses allowed the punter to view not just computer and video games but TV and video as well. With all this going for them, the glasses looked like they would sell like hot cakes. Hot cakes made out of dog poo that is.

One mail order computer firm told us that they sold only one pair of the glasses. One reason for this less than impressive sales record could be that often the glasses cost more than the computer running them. Another reason could be the fact that, despite being compatible with most platforms, there was only about one piece of software written for the glasses.

You've probably got about as much chance of getting hold of a pair nowadays as you would of finding the lost Ark of the Covenant. The i-O's scary UK retailers seem to need samples of your DNA before they even tell you whether they still sell the darned things.

Product: X-Specs 3D Stereoscopic Glasses.



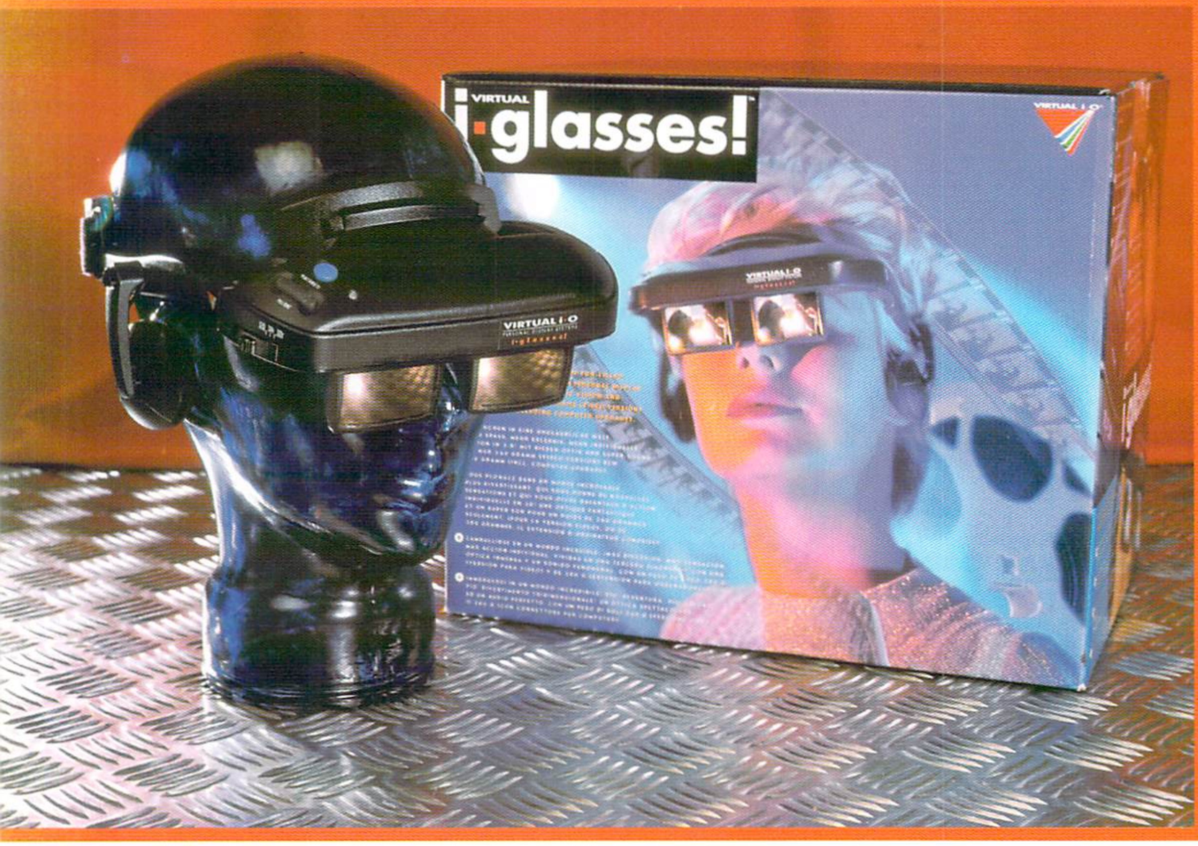
Platform: All
Price: $100 (ish)
Product Description: Rather bulky wrap-around 'trendy circa 1985' shades. Attached to head using headband. Very Bjorn CyBorg.

When you talk about VR glasses for the Amiga you really only think of the Virtual i-o glasses. However, before this elegant but costly white elephant came on the market, this remarkable little product became available for the Amiga. In 1988 to be exact – a time when the VR specs concept itself was in its infancy.

The X-Specs were admittedly low-tech. The glasses comprised of a pair of LCD lenses that could be darkened and lightened very quickly via software. The software running the glasses was configured so that the right eye saw a right eye perspective and the left eye saw a left eye perspective, creating an image of 3-D. They were originally distributed by Haitex Resources Inc. but where, and if, any of these glasses exist is anybody's guess. If they do they're probably worth a fortune.

Product: Mattel PowerGlove
Platform: All (ish)
Price: $100 (ish)
Product Description: A glove with a load of buttons on it. Tacky Power Rangers accessory.

Back in 1989 Mattel introduced a revolutionary control device for its Nintendo Entertainment System. Although it was adaptable for other platforms, including the Amiga, you would need to be somewhat of a technical genius to get it to work. Obviously the glove couldn't work in conjunction with a VR headset because no software exists to make this possible. An amusing oddity to own but, to be totally honest, the PowerGlove would probably be about as useful as a condom dispenser in the Vatican.



Super Leagues

Oh no, it's those bloody lists again. To stop me getting RSI and dying from boredom, I'm going to launch a letters page if I can get enough letters. Write in with any requests for cheats, gripes, complaints or recommendations.

Sports Simulations

1. **SENSIBLE WORLD OF SOCCER** – *Renegade*
2. **ULTIMATE SOCCER MANAGER** – *Impressions*
3. **SPEEDBALL 2** – *Renegade*
4. **PGA EUROPEAN GOLF TOUR** – *Ocean*
5. **MANCHESTER UNITED: THE DOUBLE** – *Krisalis*
6. **PRO TENNIS TOUR 2** – *Ubisoft*
7. **PREMIER MANAGER 3/ DELUX** – *Gremlin*
8. **PLAYER MANAGER 2** – *Anco*
9. **FOOTBALL GLORY** – *Kompart*
10. **SENSIBLE GOLF** – *Virgin*
11. **JOHN MADDEN'S AMERICAN FOOTBALL** – *Electronic Arts*
12. **MANCHESTER UNITED PREMIER LEAGUE CHAMPIONS** – *Krisalis*
13. **SENSIBLE SOCCER** – *Renegade*
14. **BRIAN LARA'S CRICKET '96** – *Audiogenic*
15. **PGA TOUR GOLF** – *Electronic Arts*

WEMBLEY INTERNATIONAL SOCCER – *Audiogenic*

16. **PREMIER MANAGER 2** – *Gremlin*
18. **GOAL!** – *Virgin*
19. **GRAHAM GOOCH WORLD CLASS CRICKET** – *Audiogenic*
20. **WINTER OLYMPICS** – *US Gold*
21. **ON THE BALL** – *Daze*
22. **JIMMY WHITE'S WHIRLWIND SNOOKER** – *Virgin*
23. **SUPER TENNIS CHAMPS** – *Audiogenics*
24. **MICROPROSE GOLF** – *Microprose*
25. **WORLD CLASS RUGBY** – *Audiogenic*
26. **ARCHER MACLEAN'S POOL** – *Virgin*
27. **WORLD CLASS LEADER BOARD** – *US Gold*
28. **SPEEDBALL** – *Renegade*
29. **PREMIER MANAGER** – *Gremlin*
30. **EUROPEAN CHAMPIONS** – *Ocean*
31. **BULLY'S SPORTING DARTS** – *Admiral*
32. **GAMES: SUMMER EDITION** – *US Gold*
33. **CHAMPIONSHIP MANAGER '93** – *Domark*
34. **PLAYER MANAGER** – *Anco*
35. **LINKS** – *US Gold*
36. **KICK OFF 2** – *Anco*
37. **SIERRA SOCCER** – *Sierra*
38. **TEST MATCH CRICKET** – *Challenge*
39. **TENNIS CUP** – *Loriciel*
40. **KINGPIN** – *Team 17*
42. **FIFA SOCCER** – *Electronic Arts*
43. **WEMBLEY RUGBY LEAGUE** – *Audiogenic*
44. **THE MANAGER** – *US Gold*
45. **CHAMPIONSHIP MANAGER** – *Domark*
46. **RBI 2 BASEBALL** – *Mindscape*
47. **SUPER SPORTS CHALLENGE** – *Daze*
48. **TOTAL FOOTBALL** – *Mindscape*
49. **TV SPORTS BASKETBALL** – *Mindscape*
50. **DISC** – *Lorieciel*
51. **CALIFORNIA GAMES** – *US Gold*
52. **WINTER SUPER SPORTS '92** – *Flair*
53. **CHAMPIONSHIP MANAGER ITALIA** – *Black Legend/Kompart*
54. **TV SPORTS FOOTBALL** – *Mindscape*
55. **NICK FALDOS CHAMPIONSHIP GOLF** – *Grandslam*
56. **TV SPORTS BASEBALL** – *Mindscape*
57. **TACTICAL MANAGER ITALIA** – *Black Legend/Kompart*
58. **ZANY GOLF** – *Ubisoft*
59. **TENNIS CUP 2** – *Loriciel*
60. **PRO TENNIS TOUR** – *Ubisoft*
61. **RYDER CUP** – *Ocean*
62. **IT'S CRICKET** – *Grandslam*
63. **TENNIS CUP** – *Loriciel*
64. **MAN UTD: EUROPE** – *Krisalis*
65. **THE CARL LEWIS CHALLENGE** – *Psygnosis*
66. **THE GAMES: ESPAGNA '92** – *Ocean*
67. **INTERNATIONAL SPORTS CHALLENGE** – *Empire*
68. **WAYNE GRETZKY ICE HOCKEY** – *Bethesda*
69. **STRIKER** – *Rage*
70. **MEGA SPORTS** – *US Gold*
71. **BRUTAL SPORTS FOOTBALL** – *Millenium*
72. **LIVERPOOL** – *Grandslam*
73. **WILD CUP SOCCER** – *Millenium*
74. **MASTER BLAZER** – *Rainbow Arts*
75. **SUPER SKI 2** – *Microids*
76. **GRAHAM TAYLOR'S SOCCER CHALLENGE** – *Krisalis*
77. **CLUB AND COUNTRY** – *Boms Games*
78. **PURPLE SATURN DAY** – *Infogrammes*
79. **ADVANTAGE TENNIS** – *Ubisoft*
80. **AMERICAN GLADIATORS** – *Gametek*
81. **SOCCER STARS** – *B.U.B.*
82. **FIENDISH FREDDIES TOP OF FUN** – *Tynesoft*
83. **JOHN BARNES EUROPEAN FOOTBALL** – *Krisalis*
84. **GRAND MONSTER SLAM** – *Rainbow Arts*
85. **WORLD GAMES** – *US Gold*
86. **PROJECTYLE** – *Electronic Arts*
87. **CALIFORNIA GAMES II** – *US Gold*
88. **TOP OF THE LEAGUE** – *Digital Warehouse*
89. **EUROPEAN FOOTBALL CHAMP** – *Domark*
90. **TACTICAL MANAGER 2** – *Black Legend*
91. **TRACKSUIT MANAGER 2** – *Alternative*
92. **KICK OFF 3 EUROPEAN CHALLENGE** – *Anco*
93. **CLUB FOOTBALL: THE MANAGER** – *Boms Games*
94. **TACTICAL MANAGER** – *Kompart*
95. **WORLD CUP USA '94** – *US Gold*
96. **JAHANGIR KHAN SQUASH** – *Krisalis*
98. **BILLIARDS II** – *Infogrammes*
99. **I-PLAY 3D SOCCER** – *I-Play*
100. **INTERNATIONAL GOLF** – *Summit Software*



Flight Simulations

1. **TFX** – *Ocean*
2. **COALA** – *Empire*
3. **GUNSHIP 2000** – *Microprose*
4. **F117A** – *Microprose*
5. **TORNADO** – *Digital Integration*
6. **COMBAT AIR PATROL** – *Psygnosis*
7. **OVERLORD** – *Virgin/Rowan Software*
8. **REACH FOR THE SKYS** – *Virgin/Rowan Software*



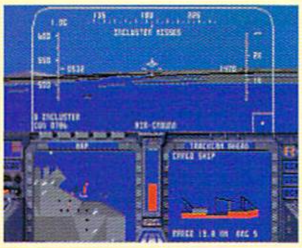
9. **A320 AIRBUS/USA** – *Thalion*
10. **FLIGHT OF THE INTRUDER** – *Mirrorsoft*
11. **DAWN PATROL** – *Empire*
12. **FALCON** – *Mirrorsoft*
13. **F-19 STEALTH FIGHTER** – *Microprose*
14. **APPROACH TRAINER** – *Thalion*
15. **DOGFIGHT** – *Microprose*
16. **THEIR FINEST HOUR** – *Unknown*
17. **THUNDERHAWK** – *Core Design*
18. **F-16 COMBAT PILOT** – *Digital Integration*
19. **A320 AIRBUS II** – *Mirage*
20. **BATTLEHAWKS 1942** – *Lucasfilm*



21. **BATTLE OF BRITAIN** – *Lucasfilm*
22. **KNIGHTS OF THE SKY** – *Microprose*
23. **FIGHTER BOMBER** – *Activision*
24. **EMBRYO** – *Kompart*
25. **B17 FLYING FORTRESS** – *Microprose*
26. **GUNSHIP** – *Microprose*
27. **PROFLIGHT** – *Hi-Soft*
28. **INTERCEPTOR** – *Unknown*
29. **FLIGHT SIMULATOR 2** – *Sublogic*
30. **MIG 29M SUPER FALCRUM** – *Domark*
31. **F15 STRIKE EAGLE II** – *Microprose*
32. **A-10 TANK KILLER** – *Sierra*
33. **F29 RETALIATOR** – *Ocean*
34. **SHUTTLE** – *Virgin*
35. **AIR SUPPORT** – *Psygnosis*

The infusion of fresh talent into Amiga Action continues. Send entries to :Amiga Action IDG Media, Media House, Adligton Park, Macclesfield SK10 4NP

36. **BIRDS OF PREY** – *Electronic Arts*
37. **MIG 29 FALCRUM** – *Microprose*
38. **TOWER FRA** – *Thalion*
39. **WINGS** – *Cinemaware*
40. **SKYCHASE** – *Microprose*



Racing

1. **JAGUAR XJ220** – *Core Design*
2. **SUPER SKIDMARKS** – *Acid Software*
3. **FORMULA ONE GRAND PRIX** – *Microprose*
4. **LOTUS III: THE ULTIMATE CHALLENGE** – *Gremlin*
5. **TURBO TRAX** – *Arcane*
6. **SKIDMARKS** – *Acid Software*
7. **NO SECOND PRIZE** – *Thalion*
8. **LOTUS ESPRIT TURBO CHALLENGE** – *Gremlin*
9. **STUNT CAR RACER** – *Microstyle*
10. **LEADING LAP** – *Black Legend*
11. **EXTREME RACING** – *Black Magic/Guildhall Leisure*
12. **SUPECARS 2** – *Gremlin*
13. **ROADKILL** – *Acid Software*
14. **ATR** – *Team 17*
15. **POWERDRIVE** – *USGold*
16. **NITRO** – *Psygnosis*
17. **LAMBORGINI** – *Titus*
18. **BILL ELLIOT'S NASCAR** – *Gametek*
19. **CRAZY CARS 3** – *Titus*
20. **TOP GEAR 2** – *Gremlin*
21. **HARLEY DAVISON** – *Mindscape*
22. **LOTUS ESPRIT TURBO CHALLENGE** – *Gremlin*
23. **ROAD RASH** – *Electronic Arts*
24. **F17 CHALLENGE** – *Team 17*
25. **MICRO MACHINES** – *Codemasters*
26. **INDIANAPOLIS 500** – *Electronic Arts*
27. **BUMP'N'BURN** – *Grandslam*
28. **NIGEL MANSELL'S WORLD CHAMPIONSHIP** – *Gremlin*
29. **VROOM** – *Lankhor*
30. **TEST DRIVE 2** – *Accolade*
31. **TEAM SUZUKI** – *Gremlin*
32. **TOYOTA CELICA GT RALLY** – *Mandarin*
33. **SUPERCARS** – *Gremlin*
34. **LOMBARD RAC RALLY** – *Mandarin*
35. **PRIME MOVER** – *Psygnosis*
36. **COMBO RACER** – *Gremlin*
37. **SUPER HANG-ON** – *Activision*
38. **RED ZONE** – *Psygnosis*
39. **INDY HEAT** – *Storm/The Sales Curve*
40. **SUPER MONACO GP** – *US Gold*
41. **OUTRUN EUROPA** – *US Gold*
42. **PSYBORG** – *Lorieciel*
43. **HARD DRIVIN' 2** – *Domark*
44. **F1 WORLD CHAM,PIONSHIP EDITION** – *Domark*
45. **JUPITER'S MASTERDRIVE** – *Ubisoft*
46. **RVM HONDA** – *Microstyle*
47. **TURBO OUTRUN** – *US Gold*
48. **HARD DRIVIN'** – *Domark*
49. **VIRTUAL KARTING** – *OTM*
50. **CHAMPIONSHIP DRIVER** – *Idea*
51. **BADLANDS** – *Domark*
52. **4D SPORTS DRIVING** – *Mindscape*
53. **GRAND PRIX CIRCUIT** – *Unknown*
54. **THE CYCLES** – *Ubisoft*
55. **CHASE HQ II** – *Ocean*
56. **POWERDROME** – *Ubisoft*
57. **OVERLANDER** – *Elite*
58. **TEST DRIVE** – *Accolade*
59. **BURNING RUBBER** – *Ocean*
60. **MOONSHINE RACERS** – *Millenium*

Stratergy

1. **SIM CITY 2000** – *Maxis*
2. **SETTLERS** – *Kompart*
3. **THEME PARK** – *Bullfrog*
4. **DETROIT** – *Impressions*
5. **POWERMONGER** – *Electronic Arts*
6. **CIVILISATION** – *Microprose*
7. **UTOPIA** – *Gremlin*
8. **COLONISATION** – *Microprose*
9. **MEGA LO MANIA** – *Mirrorsoft*
10. **FIELDS OF GLORY** – *Microprose*
11. **D-DAY** – *Impressions*
12. **VOYAGES OF DISCOVERY** – *Black Legend*
13. **A-TRAIN** – *Maxis*
14. **PERFECT GENERAL** – *Ubisoft*
15. **POPULOUS II** – *Electronic Arts*
16. **LORDS OF THE REALM** – *Impressions*
17. **GLOBAL EFFECT** – *Electronic Arts*
18. **DREADNAUGHTS** – *Turcan Research*
19. **DUNE II** – *Virgin*
20. **GENGIS KHAN** – *Infogrames*
21. **GENESIA** – *Mindscape*
22. **HIGH SEAS TRADER** – *Impressions*
23. **HILLSEA LIDO** – *Vulcan*
24. **SIMCITY DELUXE** – *Impressions*
25. **SIMCITY (and terrain editor)** – *Impressions*
26. **CEASAR/CEASAR DELUXE** – *Impressions*
27. **SUPREAMACY** – *Unknown*
28. **GLOBAL DOMINATION** – *Impressions*
29. **K240** – *Gremlin*
30. **CELTIC LEGENDS** – *Ubisoft*
31. **SABRE TEAM** – *Krisalis*
32. **POPULOUS** – *Electronic Arts*
33. **RAILROAD TYCOON** – *Elecronic Arts*
34. **BATTLE ISLE** – *Blue Byte*
35. **RAGNAROK** – *Mirage*
36. **REUNION** – *Grandslam*
37. **BANDIT KING OF ANCIENT CHINA** – *Unknown*
38. **BREACH 2** – *Impressions*
39. **REALMS** – *Virgin*
40. **CENTURION** – *CCS*
41. **HARPOON** – *Mirrorsoft*
42. **ROME AD92** – *Millenium*
43. **SIM EARTH** – *Ocean*
44. **SIM LIFE** – *Ocean*
45. **MURDER** – *US Gold*
46. **LASER SQUAD** – *Krisalis*
47. **PALADIN** – *Impressions*
49. **WARLORDS** – *Unknown*
50. **DUETEROS** – *Activision*
51. **GETTYSBERG** – *Mirrorsoft*
52. **AMARDA** – *Mirrorsoft*
53. **HISTORYLINE 1914-1918** – *Blue Byte*
54. **THE BLUE AND THE GREY** – *Impressions*
55. **FIGHTER COMMAND** – *Impressions*
56. **BURNTIME** – *Kompart/Max Design*
57. **THE PATRICIAN** – *Daze*
58. **1869** – *Flair*
59. **BORODINO** – *Mirrorsoft*





60. **RISK** – *Unkown*
61. **WHEN TWO WORLDS WAR** – *Impressions*
62. **BATTLE CHESS II** – *Intercom*
63. **BATTLEMASTER** – *Unknown*
64. **AIRFORCE COMMANDER** – *Impressions*
65. **MOONBASE** – *CRL*
66. **BATTLECHESS** – *Electronic Arts*
67. **LORDS OF CHAOS** – *DMI*
68. **BRIGADE COMMANDER** – *Unknown*
69. **VENGENCE OF EXCALIBUR** – *Virgin*
70. **VIKINGS** – *Thalumus*
71. **AIR BUCKS** – *Impressions*
72. **HILL STREET BLUES** – *Krisalis*
73. **KINGMAKER** – *US Gold*
74. **CHESS CHAMPION 2175** – *CDS*
75. **FLOOR 13** – *Virgin*
76. **STARLORD** – *Microprose*
77. **GOLD OF THE AMERICAS** – *Starbyste*
78. **HALLS OF MONTEZUMA** – *US Gold*
79. **ARNHAM** – *CCS*
80. **TOWER OF BABE;** – *Microprose*
81. **LIFE AND DEATH** – *Mindscape*
82. **RED LIGHTNING** – *SSI*
83. **CONFLICT EUROPE** – *Mirrorsoft*
84. **INTERCEPTOR** – *Electronic Arts*
85. **STORM ACROSS EUROPE** – *SSI*
86. **FORT APACHE** – *Impressions*
87. **RAMPART** – *Domark*
88. **DISCOVERY IN THE STEPS OF COLUMBUS** – *Impressions*
89. **WARRIORS OF RELEYNE** – *Impressions*
90. **SIMANT** – *Ocean*
91. **GERM CRAZY** – *Electronic ZOO*
92. **CONFLICT: MIDDLE EAST** – *SSI*
93. **NO GREATER GLORY** – *SSI*
94. **NAPOLEON I** – *Impressions*
95. **AFRIKA CORPS** – *Impressions*
96. **BIG BUSINESS** – *Rainbow Arts*
97. **CRIME CITY** – *Impressions*
98. **COHORT II** – *Impressions*
99. **CONFLICT KOREA** – *SSI*
100. **COVER GIRL STRIP POKER** – *The Sales Curve*

Amiga: The Next Generaton

The Amiga games renaissance is being led by the new generation of CD-Rom games. Over the nest two issues Hugh Poynton rounds up the stars of tomorrow

If something doesn't evolve, it dies. This is a general basic unarguable fact. The history of evolution is full of branches of species that died out because they just couldn't adapt to their recently changed environment. Technology is no different – if something can't compete, it will fall by the wayside.

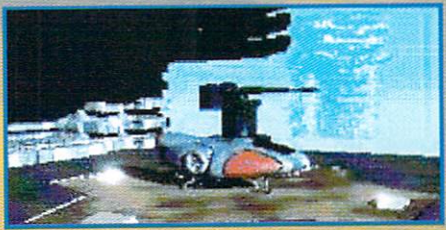
In recent months, news of exciting new Amiga based projects has emerged. Projects endorsed, not by large software houses with an interest in revamping the fortunes of the Amiga market, but rather by small independent developers and recently formed young hopeful companies.

All these software companies and developers share an interest in using the software they write to help boost the evolution of the Amiga from a late '80s home computer to a fast powerful machine capable of meeting the spec of the latest Pentium. With this month seeing the launch of Direct Software's 1 Gig hard drive, 64 bit chip Power Amiga, we take a look at a few of the leading players in the rebirth of Amiga gaming.

Demistar

Demistar is the first of four CD games that the Rios/Lebed Project plan to bring to the Amiga. It's impressive and technically advanced and Demistar still manages to combine elements of such classic games as Asteroids, Gravitar, Rip-Off and Choplifter.

Demistar is about a deep space mission to destroy asteroids that cause navigation hazards for flight traffic. However, some members of the team meet with a suspicious end and the final remaining crew member is pressed into military service to lure into the open the unknown force that has destroyed his team. The plan works and the alien enemy emerges, but the remaining crew member is left without backup and it is up to him to battle the enemy single-handedly.


Demistar


Hellpigs

Demistar is unique in its use of Lightwave (the graphics package behind Babylon 5 and SeaQuest DSV) to generate the large, beautifully textured sprites. In addition to this the game has video sequences which, among other things, feature the very same Lightwave generated sprites used in the game.

At the moment the exact requirements are not known, but all those CD-Rom owners could be in for a real treat.

Hellpigs

Vulcan Software's speciality, until now, has been producing games that, although encourage Amiga owners to upgrade, aren't really built for truly high spec machines.

This is all set to change with the long awaited release of Hellpigs (probably some time in March). Although the game will be available on floppy disk, this version will require 22 disks in total which will entail quite a lot of disk swapping and won't have all the features of the CD version.

The CD release of Hellpigs will include hundreds of Megs of FMV footage, actors, full speech and top quality graphic animation. The game will also be rated 18 Certificate due to the strong language (and perhaps, dare I say it, as a bit of a publicity stunt). It will be a landmark in Amiga games history as, although it may not be the most advanced game in development, it is produced by the biggest company ensuring that it reaches the largest market possible.



Blackblade

An impressive looking CD-Rom is currently under development from Italian developers Blackblade. The pictures and technical specifications of this fantasy flight sim definitely make it look like an Amiga game of the 21st Century. It will, so Blackblade tell us, use a revolutionary graphics engine and storyline management device somewhat similar to X-wing and a techno CDDA soundtrack.

Hopefully the game will become available sometime in the late spring of this year. However, it is not known whether the game has a UK publisher.


Blackblade

Check out Blackblade's Web site at: http://www2.shiny.it/~yagg/

Next week we look at three more Next Generation CD Rom Amiga titles.

MORE DETAILS?
ASK FOR OUR FREE AMIGA CATALOGUE
CALL 0500 223 660 FREE

SOUND FORCES

HiSoft SYSTEMS

NEW LOW PRICES

	Product	Price
NEW	IBrowse V1.10 (with frame support)	£29.95
	Net&Web	£39.95
	Net&Web 2	£69.95
	Termite	£39.95
	TermiteTCP	£39.95
NEW	Web Explosion 2CD	£49.95
	Studio II Professional	£49.95
	Cinema4D	£199.95
NEW	CinemaWORLD	£39.95
NEW	CinemaFONT	£39.95
	Upper Disk Tools	£14.95
NEW	HiSoft C++	£169.95
NEW	HiSoft C++ Lite	£79.95
	Devpac 3	£49.95
	HighSpeed Pascal	£79.95
	HiSoft BASIC 2	£49.95
	Gamesmith	£79.95
NEW	Twist 3 Database	£99.95
	ProFlight Simulator	£19.95
	Aura 8	£34.95
	Aura 16	£99.95
	Clarity 16	£129.95
	ProMidi Interface	£24.95
	Megalosound	£34.95
	VideoMaster	£69.95
	VideoMaster RGB	£109.95
	VideoMaster AGA	£79.95
	VideoMaster AGA RGB	£129.95
	ColourMaster	£69.95
	Zip Drive (inc all extras)	£159.00
	Jaz Drive (cased)	£449.00
	SMD-100 MPEG decoder	£199.95
	Classic Squirrel	£69.95
	Surf Squirrel	£99.95
	2x CD-ROM Drive (cased)	£89.95
	4x CD-ROM Drive (cased)	£129.95
	12x CD-ROM Drive (cased)	£229.95

SPECIAL OFFER
SAVE £20 ON THE PRICE OF ANY SQUIRREL WHEN YOU ORDER A ZIP OR CD-ROM DRIVE

ALL MAJOR CREDIT CARDS ACCEPTED

POSTAGE £2, COURIER £4 (NEXT DAY £6)
(ZIP, JAZ, SMD-100 & CD-ROM DRIVES BY COURIER ONLY)

HiSoft Systems
The Old School
Greenfield
Bedford MK45 5DE

Phone 01525 718181
Fax 01525 713716
Email sales@hisoft.co.uk
Web www.hisoft.co.uk

AURA 8/12

A CHOICE OF HI-FI STEREO SAMPLERS FOR YOUR AMIGA

Aura comes with a sampling suite which is probably the world's most powerful, most flexible and easiest to use sound software!



100% COMPATIBLE WITH OCTAMED 5+

AURA 8-BIT SAMPLER
CONNECTS TO YOUR PRINTER PORT
£34.95

AURA 12-BIT SAMPLER
CONNECTS TO YOUR PCMCIA PORT
£99.95

MEGALOSOUND



8-BIT DIRECT-TO-DISK SAMPLER

Connects to your printer port.
Phenomenal sound quality at a great price!

£34.95

PROMIDI

PROFESSIONAL MIDI INTERFACE

Compatible with all Midi software packages.
High quality ribbon cable minimises data loss.

£24.95



CLARITY 16



16-BIT STEREO SAMPLER

Superb quality sampling hardware and software, packed with the latest high-tech features.

Connects to your printer and serial ports. Can be used with any Amiga.

£129.95



FREE MAKING THE MOST OF MIDI WITH EVERY CLARITY 16

MAKING THE MOST OF MIDI
Paul Overaa



Whether you are a beginner, an expert or somewhere inbetween, this Midi bible, written by a recognised Midi guru, will help you take greater advantage of your Midi equipment.

£14.95

CALL 0500 223 660 FREE

HiSoft Systems—Your Safe Passage Through The Jungle